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Ocular Causes of Vertigo In the Geriatric Patient*

• The various ocular conditions which are capable of causing vertigo are discussed. Chief among these is diplopia of sudden onset. The causes of diplopia are enumerated, and the desirability of cooperation between ophthalmologist and general practitioner in discovering these causes is stressed. Treatment from the ophthalmologist's viewpoint is mentioned.

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VERTIGO is the subjective sensation of a disturbed relationship of one's body to surrounding objects in space. It results from contradictory sensations from different sensory organs which cannot be reconciled. Dizziness and vertigo are frequently used synonomously, but dizziness implies a sensation of whirling in space, whereas vertigo suggests a sense of confusion. A sudden change is necessary in order for an individual to experience vertigo; there is usually a sudden disruption of pre-existing normal sensorium. A condition existing from early childhood, to which a person has become completely adjusted, does not produce vertigo, whereas the same condition occurring suddenly in an adult, is capable of causing a sense of confusion. Even in an adult a condition which may at its onset cause vertigo, may, if long continued, cease to be disturbing.

* Presented at the Twenty-fourth Annual Meeting of the New Orleans Graduate Medical Assembly, Wednesday, March 8, 1961.

Conditions Causing Vertigo

There are a variety of conditions which may bring about vertigo. A simple classification is as follows:

1. Vertigo as the result of disturbance of the inner ear.
2. Vertigo following disturbances of the Central Nervous System.
   Toxic, occurring in the presence of a severe infection or following the absorption of various poisons.
   Anoxic, resulting from diminished oxygenation of the central nervous system as a whole, such as occurs in anemia, or generalized arteriosclerosis, or from focal lesions such as localized cerebral vascular accidents.
3. Environmental vertigo or motion sickness.
4. Vertigo of ocular origin.

Ocular Origin

Vertigo of ocular origin may occur when there is a sudden change in the way in which objects are visually perceived. There

are several situations in which objects are seen as being different than the individual is accustomed to seeing them. Most commonly, new glasses may produce this feeling. Bifocals worn for the first time, lenses which are markedly different in power from those previously worn, or new frames which position the lenses differently in front of the eye are all capable of producing a sense of confusion. The problem in such instances is usually easily solved by the patient who is aware that the minute he puts on his new glasses, he develops symptoms which are relieved when he takes them off. These problems, though vexing to both patient and ophthalmologist, are seldom serious and can usually be solved by suitable adjustments of the lenses or frames, or sometimes by sheer persistence on the part of the patient.

More rarely, a sudden or relatively sudden change in vision of one eye, particularly the dominant eye, as the result of a retinal lesion in or around the macular region may produce distortion of vision and a consequent feeling of confusion. The patient is usually very much aware of this visual disturbance and the diagnosis is usually obvious.

Still another cause of vertigo is a disturbance of binocular vision which is manifested either by frank diplopia or by a tendency to diplopia. Such disturbances are relatively rare, but when they occur, careful work-up and accurate diagnosis are important. It is interesting to note that some people recognize that they are experiencing double vision, the moment it occurs, while other people who develop a disturbance of binocular vision, sense a feeling of confusion without recognizing that they have diplopia. Disruption of binocular vision of this sort is secondary to a paralysis or paresis of one or more of the extra-ocular muscles.

Muscles Controlling Movement of Eyeball

As most readers will recall from basic anatomy, there are six extra-ocular muscles which control the movement of the eye ball. The third cranial nerve, the oculomotor, is the motor nerve which supplies the medial rectus, the superior rectus, the inferior rectus, and the inferior oblique muscles. In addition it supplies the elevator muscle of the eyelid. A lesion of the third nerve results in a rather typical picture (Figure 1) in which there is a

Figure 1. Left third nerve paralysis, with drooping of upper lid and outward and downward deviation of eyeball. Note dilated left pupil. Reproduced by permission from *Geriatrics*.

drooping of the eyelid and a downward and outward deviation of the eye. The pupil is usually dilated since the sympathetic nerve supply to the constrictor muscle of the pupil joins the third nerve in its course. Since all muscles but two are involved, there is little or no motion of the globe and the eye is fixed in the down and out position.

The fourth cranial nerve (trochlear) supplies the superior oblique muscle whose principle function is to rotate the eye down and in. Lesions of this nerve do not result in any obvious displacement of the globe but the eye is limited in its excursion in the main field of action of the muscle; hence the right eye is unable to follow an object which is down and to the patient's left, while a paralysis of the left superior oblique results in a lag of the left eye when the patient looks down and to his right.

The sixth cranial nerve (abducens) supplies the lateral rectus muscle. Paralysis of this muscle results in an inability to rotate the eye laterally. If the right lateral rectus is paralyzed the right eye is unable to follow to the right; whereas if

Figure 2. Paralysis of left lateral rectus, Note that eyes are straight in center picture, and both eyes rotate well on looking to the right, but on looking to the left, the left eye does not rotate outward beyond the mid-line. Reproduced by permission from *Geriatrics*.

the left lateral rectus is paralyzed, the left eye is unable to follow to the left. (Figure 2)

Diagnosis

In many instances, particularly when there is a complete paralysis of the 3rd or 6th nerve, the diagnosis may easily be made by inspection, particularly when the patient is asked to follow a moving object into the various fields of gaze. In instances where there is only a paresis, or if there is any fourth nerve involvement, diagnosis may not be so obvious. In such instances, the simple expedient of having the patient close one or the other eye may point the way to the solution of the difficulty. Closing the involved eye immediately eliminates the diplopia and the attendant confusion. Closing the uninvolved eye, permitting the patient to see with the paralyzed eye, eliminates the diplopia but may not eliminate a feeling of confused orientation in space.

The ophthalmologist employs an additional diagnostic test in the form of a red glass which is held over one eye while the patient fixates a small light. A patient with diplopia sees two separate images, a red and a white one. By analyzing the position of the images in the different fields of gaze, he can obtain diagnostic information in puzzling cases. Moreover, by properly charting the position of the images, he obtains a record which can be utilized in following the case from time to time.

Once the presence of diplopia has been demonstrated, a search must be made to determine the cause of the impaired extra-ocular muscle function.

In a series of cases in which there was no evidence of orbital disease or trauma to the orbital structures and the lesion was therefore due to a nuclear or infranuclear nerve involvement, Rucker [1] found intracranial neoplasm responsible for 16.5 per cent of cases with extra-ocular muscle paralysis. Vascular disease which included arteriosclerosis and hypertension and intracranial aneurysm, accounted for 26.5 per cent. The neuropathy which occasionally occurs in diabetes is included with vascular disease. In Rucker's series, head trauma, apart from trauma direct to the orbit caused extra-ocular muscle paralysis in 17 per cent of the cases. A miscellaneous group including various infections and multiple sclerosis accounted for 12 percent of the cases. Lastly no etiology could be determined in 28 per cent of cases.

It is clear that any case with paralysis of one or more of the extra-ocular muscles should have a complete physical examination with special attention to the cardiovascular system. A neurological examination is especially important. Laboratory work should include a blood sugar to rule out the possibility of diabetes mellitus. Obviously any possible etiologic factor should receive treatment.

Certain local orbital lesions which may mechanically interfere with the proper function of the extra-ocular muscles may produce diplopia. These include various tumors within the orbit such as nonspecific inflammatory masses, aneurysms, or neoplasms. Usually the diagnosis may be

made by inspection in such cases, since there is usually a fairly obvious displacement of the globe.

Trauma involving the orbital structures may also be the cause of impaired function of the extra-ocular muscles. Any patient with a head injury and unilateral or bilateral subconjunctival hemorrhage should be checked for diplopia, since this combination of findings is pathognomonic of fracture of the orbital walls. Immediate reduction of the fracture is exceedingly important since a good end result can be expected. Late repair frequently involves refracture of the orbital walls or implantation of plastic prostheses to force the globe back to its normal position. Such secondary procedures give less satisfactory results.

Treatment

If an orbital lesion is responsible for diplopia, excision of the lesion or other appropriate treatment is indicated. If the diplopia is due to nerve paralysis, local treatment is palliative. The easiest, temporary measure should be the occlusion of one eye. If the eye with the paralyzed muscle is covered, all symptoms will disappear immediately. If a paresis rather than a paralysis exists, there may be some advantage in occluding the sound eye part of the time, forcing the patient to use the paretic eye in order to prevent contractures of the uninvolved extra-ocular muscles. If the paralysis is complete, and even sometimes in the presence of a paresis, the sensorium may be disturbed when the sound eye is occluded, and there may be past pointing and other signs of confused spacial judgment, so caution must be exercised in being too firm in demanding occlusion of the sound eye.

If the double images are not displaced too much, appropriately placed prisms incorporated in spectacles may afford some symptomatic relief. There are certain disadvantages in the use of prisms, however, so that they are really of occasional use only. Since the use of prisms is rather technical, it is necessary that the ophthalmologist prescribe them.

In patients with a lower motor neurone lesion, if four to six months elapse without improvement, surgery on the involved muscles may be advisable. This surgery which necessitates lengthening some tendons, shortening others, and in some instances transplanting still others, gives best results in lateral rectus paralysis, but even in such cases, the result may fall far short of perfection. It is impossible to achieve any kind of a functional result in complete, permanent paralysis of the third nerve.

Conclusion

Although vertigo of ocular origin is rare, extra-ocular muscle paresis or paralysis must be considered as a possible cause.

The diagnosis may usually be suspected from the history, and a few simple tests are confirmatory.

An acute paralysis of one or more of the extra-ocular muscles calls for a complete physical and neurological examination to discover the cause in the absence of an obvious local lesion.

Treatment of permanent paralyses is in the province of the ophthalmologist and is, unfortunately, not always satisfactory.

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The Antihypertensive Effect Of Guanethidine Sulfate*

• An evaluation of the drug in twenty-five hypertensive patients.

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FOLLOWING Maxwell's, *et al*,[1-3] postulation that guanethidine sulfate (Ismelin, Ciba) exerts its action at the sympathetic nerve endings and causes sustained lowering of both systolic and diastolic blood pressures in unanesthetized neurogenic and renal hypertensive dogs, there was much investigation[4-7] to determine the antihypertensive effects in man. This investigation involved not only the hospitalized hypertensive,[4, 6] but also the outpatient hypertensive patient,[5] with one investigator utilizing both.[7] It is the purpose of this paper to present the clinical antihypertensive effects of guanethidine sulfate on 25 unselected patients from the Hypertension Clinic, L.S.U. Service, Charity Hospital, New Orleans.

Methods and Materials

Twenty-five patients, consisting of 17 Negro females, 5 Negro Males, and 3 Caucasian females, were selected at random, their range of age from 34 years to 66 years, with an average of 47.8. All previous antihypertensive medication was discontinued for a minimal period of two weeks. At the end of this period the patients were graded according to severity, and then were started on guanethidine in a dosage routine proportional to the severity of their hypertension. The patients were seen biweekly, blood pressures were taken in the sitting position, and dosage was altered according to response. Any side effects experienced by the patients were likewise recorded. Blood urea nitrogen determinations were made prior to and after the study.

It was the authors' opinion that in order to fully evaluate this drug, a minimum of five months be used for clinical trial. The average length of time utilized was 20.3 weeks (See Table 1). It was not felt that a solitary blood pressure at the end of the study would necessarily reflect a valid response to the agent, therefore, to evaluate an "initial response", an average of blood pressures taken at four and six weeks was used, and an average of the last three blood pressures taken was used to reflect a "sustained response".

Dosage

The lowest dosage utilized was 10 mgm. daily, and the highest used was 75 mgm. daily, with an average of 41.3 mgm. per day (See Table 1). In all instances except one, dosage was increased with the passage of time in order to maintain the antihypertensive effect.

Results

Initial antihypertensive results. — By utilizing the criterion that any fall in the diastolic blood pressure represents a "response" and that no change or rise in diastolic pressure represents "no response", there were noted 19 responses, 12 of which

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* Supplied as Su-5864 by Dr. W. Wagner of CIBA Pharmaceutical Products, Inc., Summit, New Jersey.

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TABLE 1

Case Number	Age	Sex	Race	Grade	BP Untreated (MM Hg) Sitting	Dosage room/day Low	Dosage room/day Average	Dosage room/day High	Duration of Treatment (Weeks)	BP after Treatment Average 4-6 Weeks (MM Hg) Initial (Sitting)	BP after Duration of Treatment (MM Hg) Sustained (Sitting)	BP Change 4-6 Weeks (MM Hg)	BP Change after Duration (MM Hg)	BUN mgm % Before Treatment	BUN mgm % After Treatment	Side Effects
1.	58	F	W	1	170/98	20	27.7	30	23	154/80	140/80	—16/—18	—30/—18	21	15	Increased appetite, mild orthostatic faintness
2.	57	F	N	2	156/92	10	18.2	20	19	140/82	153/68	—16/—10	—3/—24	9.5	17	Congestive heart failure
3.	45	M	N	1	150/100	20	28.8	30	14	151/101	159/106	+1/+1	+9/+6	8	—	
4.	55	M	N	2	160/140	30	38.3	40	9	140/97	152/100	—20/—43	—8/—40	12	—	Increased appetite, increased libido
5.	51	F	W	2	180/112	30	36.6	50	22	177/97	165/96	—3/—15	—15/—16	8	12	Increased appetite, weakness
6.	46	F	W	1	170/120	20	34.1	50	22	187/110	181/99	+17/—10	+11/—21	7	17	
7.	37	F	N	1	180/116	30	38.3	50	23	150/103	156/109	—30/—13	—24/—7	5.4	17	Increased appetite, mild orthostatic, faintness
8.	46	F	N	2	200/130	20	32.3	50	23	121/106	162/115	—79/—24	—38/—15	19	15	Headache
9.	36	F	N	2	170/120	20	25.4	30	23	142/105	149/98	—28/—15	—21/—22	7	11	Orthostatic, faintness and weakness
10.	37	F	N	1	150/110	30	31.6	50	22	150/109	152/109	0/—1	+2/—1	10	9	
11.	54	F	N	1	170/99	20	31.1	50	22	180/105	165/94	+10/+6	—5/—5	10	17	
12.	55	M	N	2	190/104	30	30	30	21	175/95	149/80	—15/—9	—41/—24	10.8	16	
13.	40	F	N	1	156/102	25	26.2	30	18	156/99	142/92	0/—3	—14/—10	14	—	
14.	55	M	N	2	210/136	75	75	75	21	200/117	187/117	—10/—19	—23/—19	15	13	
15.	51	F	N	2	220/100	25	66.6	75	21	182/105	190/102	—38/+5	—30/+2	13	14	
16.	57	M	N	2	240/120	50	61.3	75	20	199/108	201/113	—41/—12	—39/—7	16	21	Increased appetite, mild orthostatic, faintness
17.	34	F	N	4	250/160	50	67.8	75	19	196/128	172/108	—54/—32	—78/—52	9	—	
18.	39	F	N	2	194/118	25	59	75	23	167/106	171/103	—27/—12	—23/—15	19	21	
19.	52	F	N	1	220/120	40	46.6	50	21	163/97	174/103	—57/—23	—46/—17	16	13	Increased appetite, orthostatic syncope
20.	50	F	N	2	210/124	40	59.5	25	21	175/114	176/120	—35/—10	—34/—4	8	16	Mild orthostatic, faintness, palpitations
21.	42	F	N	2	180/110	30	45.8	50	23	162/110	155/105	—18/0	—25/—5	17	13	Increased appetite, headache
22.	41	F	N	1	128/102	20	20.6	25	19	130/99	142/92	+2/—3	+14/—10	12	12	
23.	42	F	N	4	172/122	40	47	50	20	149/106	149/102	—23/—16	—23/—20	21	21	Increased appetite
24.	66	F	N	2	220/124	25	43.7	50	22	200/96	205/100	—20/—28	—15/—24	14	15	Mild orthostatic, faintness, weakness
25.	51	F	N	4	192/116	30	43	50	18	195/115	175/107	+3/—1	—17/—9	12	15	
Averages: 47.8							41.3		20.3			—19.8/—12.2	—20.6/—15.1			

were greater than the average of the diastolic responses. The average diastolic fall was 12.2 mm. of Hg., and the average systolic fall was 19.8 mm. of Hg. There were 12 patients whose initial systolic pressure responses were greater than the average of the systolic responses.

Sustained antihypertensive results.—Using the same criterion as above, we noted a "response" in 23 of the 25 patients, 12 of which were greater than 15.1 mm. of Hg., which is the average of the diastolic response. It was likewise noted that there were 14 patients whose systolic fall exceeded that of the average systolic fall of 20.6 mm. of Hg.

Side Effects

True orthostatic syncope was experienced by only one patient, although 6 experienced mild orthostatic faintness. One patient went into congestive heart failure, was digitalized, and compensated without any discontinuance of the drug. It was noted in 8 patients that there was an increase in appetite and overall feeling of well-being paralleling that of euphoria in one. Weakness was related by 3 patients, and vague frontal headaches in 2. Because only 5 males were used in this study, we encountered only 1 case of ejaculation becoming prolonged, and interestingly enough, this was considered a beneficial effect by the patient. No significant changes of the blood urea nitrogen were noted.

Summary

The antihypertensive action of guanethidine sulfate (Ismelin Ciba) on 25 unselected out-patients from the L.S.U. Hypertension Clinic, Charity Hospital, New Orleans, is presented. The patients were checked biweekly and were followed for an average of 20.3 weeks. Dosage ranged from 10 to 75 mgm. with an average of 41.3 mgm. per day. Twelve patients (48 per cent) showed a drop in systolic and diastolic pressures greater than the average of initial systolic and diastolic responses of 19.8/12.2 mm. of Hg., while 14 (56 per cent) patients had a sustained drop in systolic pressure greater than the average drop, and 12 (48 per cent) patients had a sustained diastolic fall which exceeded the sustained average of 20.6/15.1 mm. of Hg. Side effects most often elicited were orthostatic faintness, increase in appetite, weakness, and headache. No significant BUN changes were noted.

Previous clinical observations on the use of antihypertensive drugs in our Clinic have demonstrated that some drugs may lose their effectiveness even after six months. Other drugs may then produce an antihypertensive effect. Resumption of the original agent at a later period may again demonstrate the previous antihypertensive effect after it has been withheld because of acquired refractiveness.

Effective management of a case of arterial hypertension necessitates continued observation as various drugs may be required at different periods. Some cases do not require this adjustment and may be maintained on a drug with a good prolonged response.

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Sarcosporidiosis*

• A popular misconception is corrected concerning the identity of certain minute bodies occurring in the breast meat of some wild duck killed in Southwest Louisiana.

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MUCH misinformation exists among veterinarians, physicians, sportsmen, duck hunters, gourmets and interested lay persons concerning the identity of certain minute bodies occurring in the breast meat of some wild ducks killed in Southwest Louisiana. It is important especially for physicians to be correctly informed on the exact nature of these bodies since they may be queried about their disease potential by misinformed patients and lay persons. With this in mind a study to determine their identity was undertaken.

Materials and Methods

In 1958, Dr. James Heard, D.D.S., Lake Charles, Louisiana, provided for investigation a fresh frozen greenhead mallard drake containing uniform intermuscular white structures similar to those he had noted in the breast meat of other ducks.

Naked eye examination of the mallard revealed many glistening small white uniform rice-like bodies measuring 4 mm. to 5 mm. in length and 1 mm. to 1.5 mm. in diameter located between and parallel to the muscle fibers of the breast.

After formalin fixation slides of longitudinal and transverse sections (Figures 1, 2, 3) were prepared and stained and when studied microscopically, revealed small elongate oval bodies with tapering rounded ends. An outer membranous layer enveloped the body. Trabeculae passed into the interior from an inner layer producing compartments filled with crescent-shaped spores in various stages of development.

Identification and Classification

The above characteristics identify these minute rice-like intermuscular bodies as a parasite. Placed at one time in the category of Protozoa because of their unicellular character, they were further subclassified as belonging to the Sporozoa because of their spore-forming capacity in one stage of development. Since the spores eventually migrated to involve the skeletal muscles primarily, these unicellular parasites were further classified as

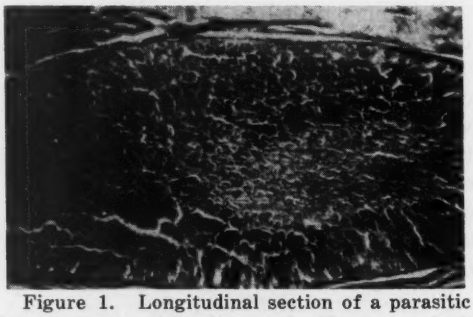

Figure 1. Longitudinal section of a parasitic body between pectoralis muscle fibers of a duck killed in Southwest Louisiana. x 35.

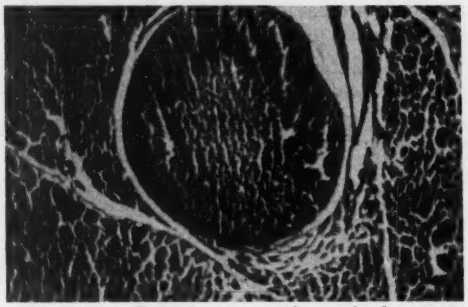

Figure 2. Transverse section of the same parasitic body showing two linings and internal structure. x 35.

* Presented at the Eighty-first Annual Meeting of the Louisiana State Medical Society, May 10, 1961, in New Orleans.

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Figure 3. Longitudinal section showing detail of linings, trabeculae, and compartments containing spores. x 430.

belonging to the order Sarcosporidia and hence the term, "Sarcosporidiosis" was coined to describe this animal condition.[1-3]

As in the case of Rhinosporidiosis and Toxoplasmosis (parasitic diseases of man and animal), Sarcosporidiosis is tentatively regarded as a parasitic fungus infection principally of animals rather than a parasitic protozoon disease.[4]

Birds, reptiles, and mammals including horses, hogs, sheep and cattle are parasitized by various species of similar morphology referred to as Sarcocystis.

The striated or skeletal muscles of the body, especially of the chest, tongue and diaphragm are involved primarily. Depending on the species and stage of development, tubular masses of spores are formed called "Miescher's tubes" after their discoverer who first described them in mice.

Life Cycle

The life cycle is uncertain but according to studies conducted in mice and sheep fed with flesh or feces containing spores infections were produced. Herbivorous animals become infected in ingesting contaminated food. The current theory is that spores liberated by ingestion penetrate the cells of the intestinal lining. After multiplication they reach the lymphatics and eventually migrate to the muscles where they develop into sarcocysts. From forty to fifty days are required before the parasites are found in skeletal and smooth muscle tissue and from eighty to ninety days before spores are produced.

Pathogenesis and Incidence

This parasitic disease is very rarely observed in man. No deaths or definite symptomotology have been reported. Only 12 nonfatal asymptomatic authenticated cases, mostly from India, Barbados and the Sudan, have been described as due to *Sarcocystis lindemanni* but in all cases the parasites were accidentally noted at autopsy.[5-7] These parasites can be generally regarded as harmless to man and animal.

Although they may be spoken of as *"worms"* by the lay person, in the biologic sense they do not fit the criteria for worms. Hence when questioned about this problem it is best and more scientific to use the term "animal parasite". The destruction of parasites and bacteria by the proper cooking of meat of edible vertebrates is generally known.

There is no evidence that properly cooked parasitized ducks will cause any harm. Local inquiry amongst scientific professional persons and the lay public interested in this problem reveal a common misconception that these tiny rice-like bodies are either (1) worms or (2) collections of fat.

Research

Research and study of the problem with ultimate steps toward eradication and prevention of this nuisance-type para-

site are underway at many state and national biological laboratories.

Summary

. One stage of a harmless parasitic disease known as Sarcosporidiosis is seen in the breast meat of wild ducks in Louisiana. These parasites are easily recognized by the unaided eye as small whitish rice-like intermuscular bodies running parallel to muscle fibers. Microscopic study identified these bodies as single-celled spore forming organisms. Nonfatal human infection by this parasite is very rare and since it gives rise to no symptoms it is not readily discovered except at autopsy. How man acquires the infection is uncertain but eating uncooked or contaminated food is the most probable explanation. For obvious reasons the use of the more scientific term "harmless parasite" is preferred to the term "worm" when discussing this condition with lay persons. A popular misconception concerning the identity of these bodies is corrected.

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Discussion

Dr. Robert Worden, (Lake Charles) — When Drs. Ranier and Newman asked me to discuss this paper I thought it was rather odd for an obstetrician-gynecologist to discuss a subject in the field of parasitology. However, when they explained to me that they were interested in my comments as a fellow physician whose avocation is hunting, I agreed to discuss the subject.

From discusions with other hunters it is my impression that about 50 per cent of the duck population in Southwest Louisiana is parasitized by this "fungus". In our area from my own personal polling of physicians, veterinarians, hunters, guides, sportsmen, housewives and wildlife reporters there seems to be a great variety of opinions about the exact nature and pathogenicity of these rice-like intermuscular bodies.

Incidentally, a recent short article on this subject which appeared in the February 1961 issue of *Conservation* published by the Louisiana Wild Life and Fisheries Commission was based entirely on the paper presented here today by Dr. Ranier.

To add further confusion, recently an article appeared in the Wildlife section of our local newspaper quoting a state biologist as stating that these parasitic fungi were merely fat bodies, a theory I found held by a significant number of veterinarians, sportsmen, housewives and reporters. This certainly is not the case and I am glad that Drs. Ranier and Newman have set the record straight. I wish to commend the authors for emphasizing that there is no real health hazard involved and that physicians may with assurance calm the fears of patients who believe eating these parasitized ducks could account for their illness; likewise they can be further assured that it will not affect their health in the future.

Now that "nutria", a herbivorous mammal, is being promoted as satisfactory for human and animal consumption, similar bodies may soon be reported in humans as well as dogs, cats, and other animals fed meat so parasitized. Hence it is important that farmers, veterinarians, trappers, meat packers and distributors as well as physicians be properly informed of the true significance of these organisms.

In conclusion, I would like to urge you to stimulate the members of both State and Federal Wildlife Commissions to look into possible means of eradicating this nuisance food problem particularly in view of the so-called contemplated population explosion. It is certainly a shame to waste edible food because of a false notion of its illness-producing capabilities.

Symposium
Oral Griseofulvin in Superficial Fungal Diseases of the Skin*

I. Introductory Remarks

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IT was at the American Academy of Dermatology and Syphilology Meeting in Chicago, Illinois, December 6, 1958, that Blank and Roth [1] of the University of Miami (Florida) Medical School, presented a preliminary report of their limited but very successful experience with systemic treatment of superficial fungal infections. I was in attendance at that memorable meeting and shared in the excitement and satisfaction expressed by many, that these men had finally opened the door to a new field of clinical and research medicine which, up to then, had seemingly evaded the minds and efforts of men in medical science. It also meant the beginning of a new era of definitive treatment of a group of conditions which would be quite a contrast to the discouraging and inadequate vicissitudes of therapy of fungal diseases of man and animal in the past.

Earlier Work

Some of the earlier work with this new orally administered antibiotic, griseofulvin, had been done by Gentles [2] on guinea pigs and Lander and O'Sullivan [3] while treating calves, both animals having been experimentally infected with fungi that also infect man. It was brought out in discussions of Blank's [1] paper in Chicago, in 1958, by G. A. Grant Peterkin that he had tried the drug topically on human dermatomycoses without success and had not (much to his later chagrin) pursued the oral possibilities of the drug. It had not been used successfully orally in man until Blank et al. decided to try it on a patient who had suffered a *T. rubrum* infection of the glabrous skin for over twenty years. It was this case, so we are told, that opened their eyes to its use in many others which were the basis for their memorable report. Those of you, like ourselves, whose patients have benefited from this wonderful drug are now, no doubt, obtaining these same results.

Sensitivity

Griseofulvin is a fermentation product of three species of (fulvicins) penicillin, *P. patulum, P. griseofulvin* and *P. janczewski.* Clinically it has not been proven to produce cross sensitivity in penicillin-allergic individuals which seems to be a blessing considering the rather extended use of penicillin and griseofulvin today. There is reported in a recent JAMA [4] issue a rather severe angioneurotic edema —urticaria type of case which rather remarkably resembles a true penicillin hypersensitivity-type of reaction. This case may or may not be one to contradict some of the earlier reports that griseofulvin would not cross-react with penicillin sensitive individuals. Time alone will tell.

Griseofulvin is apparently inactive against bacteria and hence has not provoked the problem that so many other oral antibiotics have done when they react to upset the normal intestinal flora. It does seem to be inactive, too, against actinomycetes and yeasts. However, as has been the experience of most of us in

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treating some cases of *T. rubrum* that have been existent for many years, there may be a secondary flare-up of an unknown monilial infection with the progressive improvement of the trychophyton infection. This would make one conclude that *T. rubrum* has a suppressing effect upon a coexisting yeast infection of the skin in the same patient.

As others will point out to you today, dermatotrophic fungi attack the keratin of the skin and its appendages so the ideal antifungal agent would naturally be one to seek out this material in the skin, nail, hair, etc. and have its predisposed effect at this site. Griseofulvin is thought to go even one step further than the formed keratin and in so doing, penetrates the living keratogenic cells at a very early stage in their development—a site not affected by superficial fungi. It was Wilson [5] who is quoted as writing in his text on the subject:

"The ideal antifungal drug even for superfiical mycoses, would seem to be one which could be safely administered internally in amounts sufficient to endow the cells eventually destined to produce keratin with the power to resist fungi completely, this power persisting as they become keratinized and the drug thus exerting its efforts from within outwards".

Probably because of the process just described, it is felt that our new antifungal agent is fungistatic and not fungicidal. Perhaps that is why we are finding the results obtained in treating some of our trychophyton onychomycoses cases so discouragingly resistant to treatment. According to studies by Roth and Blank,[6] it has been shown that fungi can be immersed in media containing griseofulvin for many weeks and even though there is no growth during that period, when the mycelia are removed and washed, growth is seen to begin again.

Indications

In my practice, I have made it a rule to refrain from starting a patient on griseofulvin until I am positive of the indication for the drug. That is, I have either found positive evidence of a susceptible fungus on "fresh prep" examination under the microscope or on appropriate culture, before the drug is prescribed. Then I place the patient on adequate dosage and try to maintain him on this therapy until I have obtained a clinical or preferably a culture-cure. There have been some patients to come to me with the history of having had "the expensive drug" in question where they should not have done so. Some of these cases have been misdiagnosed clinically and actually were not of fungal origin at all. Others have been cases caused by fungi not amenable to successful therapy with griseofulvin.

I can recall one lady-patient calling and stating that she would appreciate my mailing her a prescription for "that new medicine by mouth that is good for ringworm". She had been a patient of mine before the discovery of the usefulness of griseofulvin and had been told that she had dyshidrotic hand eczema. Because of a recurrence of the hand eczema, she had been back to her druggist for refilling of the prescriptions I had given her two years previously. The druggist had looked at her hands and stated that she ought to get me to give her a prescription for the new drug (stating that he couldn't sell it without a prescription) because he thought it would cure the eczema. This sort of thing should be discouraged by all of us as physicians—both for cases involving this drug and others. Naturally this cited case is the exception rather than the rule, but does indicate an abuse of a preparation that should be kept in the category for which it was intended. Griseofulvin is an excellent drug and if we continue to put it to proper use only, as best we can, it will do therapeutic wonders for us. Already it has done things for us as dermatologists that I personally did not believe would ever come to pass in my medical lifetime.

I would like to again quote a statement made by Wilson [7] at the "Doctor to Doctor" forum at the American Medical Association meeting in Atlantic City, June 4, 1959. He said,

"I think that griseofulvin is the only anti-

fungal antibiotic which has appeared so far which is apparently reasonably safe for internal administration. I do not say that I believe this is the only one which will ever be discovered, but it might be. The soils of the earth have been rather thoroughly assayed for antibiotics, a search which has been very extensive and continuous over many years. If there were in nature a great many such materials as this, I think that some would have been found before this time. Therefore, it is wise for us to look upon this as a very valuable agent and one which should not be wasted. By wasted, I mean to allow it to undergo the same misuse which has wasted a good deal of the effectiveness of some of the other antibiotics. Penicillin is only about 40 per cent as valuable to the medical profession as it was at its beginning, because our bacterial enemies have learned to resist it. Sooner or later, our fungal enemies may learn similarly to resist griseofulvin. If it is used too widely and without appropriate control, we may lose some of its value".

This is certainly excellent food for thought and well worth remembering in our every-day practice.

Another thought that has occurred to me is that with the tendency for certain individuals and groups to perhaps unreasonably criticize and even try to legislate against the pharmaceutical and medical professions, perhaps we would be better proponents of good public relations if we always prescribed these expensive medicines with utmost discretion and judgment. I refer to the fact that at times when we get a little overly busy, we tend to lean on some of the antibiotics as a crutch rather than sticking to and prescribing them only when we know that there exists a true indication for their use.

My own impressions of griseofulvin, as have been concluded from my own practice, are probably a reflection of those of many. I feel that it serves an excellent purpose if we stick to its use in those superficial fungal diseases caused by species of trychophytons, microspora, and epidermophytons. This particularly includes tineal (ringworm) infections of the hands, feet, nails, hair and body skin. It seems unbelievable that some of these cases can be positively cured in as short a time as a few weeks, but that is what is currently being accomplished. There are some patients, particularly those with nail (more especially, toenails) and interdigital infections which are less responsive to the drug and may require a disturbingly long time in bringing about a cure. I found one case of *T. rubrum* infection of the skin and nails (of many years' duration) in which the skin and toenails responded much quicker than the fingernails did.

Topical Treatment

I have made it a practice to continue to treat my cases locally in addition to administering the oral medication. This is particularly true in *T. capitis* infections and I think that we all agree that extirpating the infected hairs is essential for a cure. However, the concomitant administration of oral and local therapy in fungal skin and nail cases is debatable. For instance Wilson [7] says:

"I don't think nails should be removed—I was against it before we had griseofulvin and I'm against it now that we have griseofulvin. I have seen such a small percentage of cures obtained by complete removal of the fingernails and toenails that I have become very discouraged with this procedure. I believe that it is better to allow the material to stay there. I think we should realize that griseofulvin contributes a resistance to fungous invasion in a certain layer of cells. This layer of cells produces nails, it produces hair, it produces skin. As this layer of cells moves outward, to be finally shed from the periphery, it becomes a sort of barrier through which the fungus cannot pass. The surgical removal of nails would remove the barrier as well as some peripherally infected nail. I also believe it is unwise to use keratolytic agents on the skin during the administration of griseofulvin. It is true that such agents might remove the most external portion of the keratin, and thereby remove some of the organisms, but they would also be likely to remove the part of the keratin that is endowed with this drug and is serving as a resistance barrier to the deeper penetration of the infection. I think it is best to let these things take their natural course".

So you can see that some feel that oral treatment alone is the procedure of choice in most tineal infections.

Reactions

Doctor Kennedy is going to adequately cover untoward reactions to griseofulvin on our panel but my own practice recent-

ly produced a symptom-complex in a case that might be worth mentioning. This man had a glabrous skin infection (involving primarily the buttocks and crural region) which responded nicely to 1000 mg. a day of griseofulvin and in about two weeks time he was symptomatically cured. I was planning to taper off on the drug when he developed a persistent generalized body itching (no evidence in my office of a true urticara). This continued when the griseofulvin was stopped and required steroids for relief. At the time of this writing, he is beginning to get relief but I do not yet know the final outcome of his reaction. He is not penicillin-sensitive to my knowledge. I plan to do liver function studies on him before I discharge him. Clinically this is a definite side reaction to the drug. It appears that they are going to be more and more common as we increasingly use griseofulvin.

Much has been written and discussed by mycologists, dermatologists and others working with oral griseofulvin. However, when we were called upon to present a dermatology program at the state society meeting it was felt that a thorough review of the discovery and history of the drug, physiology, in vitro studies, uses and abuses in clinical practice, relapses, reinfections, development of resistance to the drug, toxicity, pertinent data as to diagnosis and treatment of fungal diseases of different parts of the body and a relation of interesting personal experiences by members of the panel, would be in order.

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The Influence of Modern Scientific Medicine on the Prevention and Cure of Disease

The Annual Oration Delivered before the New Orleans Medical and Surgical Association, December 10, 1881, by Isaac L. Crawcour, M. D.

It is now about twenty years since Tyndall demonstrated that the atmospheric dust which we distinguish as motes in the sunbeam, consisted of organized materials, and that this dust contained the organisms which produced putrefaction, fermentation, and a host of other changes. Reasoning from this, it was left to the genius of Pasteur and Lister to determine that these atmospheric organisms were the cause of the non-healing of wounds, of septic poisoning, of erysipelas, puerperal fever, etc., and that by preventing the attachment or absorption of these germs, sepsis was obviated, wounds healed by first intention, and the antiseptic treatment of wounds became inaugurated.

New Orleans M. & S. J. 10:481 (January) 1882

II. Treatment of Fungal Conditions with Griseofulvin, Scientific Background

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GRISEOFULVIN was initially extracted from the mycelium of *Penicillium griseo-fulvum* by Oxford, Raistrick and Simonart,[1] in 1939, during the penicillin era when intensive searches were being made for other antibacterial substances. Since griseofulvin did not possess such activity, it was laid aside.

Agricultural Beginnings

In 1945, however, griseofulvin was rediscovered when Brian, Hemming and McGowan[2] reported culture filtrates of *P. janczewski* had a peculiar distorting effect on *Botrytis allii,* a plant pathogen. It is interesting to note that Brian and his associates were investigating the origin of toxicity to mycorrhizal fungi normally associated with coniferous trees which were experiencing a growth failure in the area of Dorset, England. The toxicity, and attendant growth failure of conifers, was shown due to an accumulation in the soil of metabolites of *P. janczewski* and other species of *Penicillium.* One of the metabolites responsible was named "curling factor" (Brian[3]), a terminology currently used. In 1947, Grove and McGowan[4] found that the "curling factor" of *P. janczewski* was identical with griseofulvin isolated from *P. griseofulvum* several years previously.

There was a flurry of interest by agriculturists when in 1951 Brian *et al.*[5] utilized the fungistatic effect of griseofulvin to protect crops. In choosing this substance, they were influenced by four considerations: (1) It could be detected by a bioassay based on its unique effect on certain fungi. (2) It possessed stability in aqueous solution. (3) It had low toxicity for higher plants. (4) It was produced by fungi that are abundantly and widely distributed in agricultural soils. In fact, the last mentioned consideration led them to believe soil seeded with griseofulvin-producing fungi might produce griseofulvin locally which would then be taken up by the roots and hence transported to the leaves of young plants. They were not able to make practical application of this concept but because of their experiments griseofulvin was rather widely employed for agricultural purposes.[6]

It was soon shown that griseofulvin could be produced by still other penicilia, viz. *P. patulum, P. raistrickii,*[7] and *P. janczewskii.* It should be noted, however, that Raper and Thom[8] consider both *P. patulum* and *P. griseofulvin* as synonomous with *P. urticae;* and *P. janczewskii,* the same as *P. nigricans.* Regardless of the source, however, various lots of griseofulvin possessed the same activity. The chemical nature of griseofulvin was studied by Mulholland and his associates and reported in 1952 in a series of six parts. (Only the last part is listed in the references[9] of this review.)

Not until 1955 was griseofulvin employed against fungi pathogenic for human beings. At this time investigators at the Glaxo Laboratories in England found it active *in vitro* against pathogenic skin fungi.[10] Topical applications in ointment form were unrewarding, however, and were no improvement over the use of older fungistatic agents.[10, 11]

In August of 1958, J. C. Gentles,[12] a medical mycologist in the department of bacteriology at the University of Glasgow, published his now historic note, "Experimental ringworm in guinea pigs, oral treatment with griseofulvin".[12] It is interesting to note this apparently represents only the second trial reported in the literature of an attempt to treat superficial fungous infections orally with spe-

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cific chemo-therapeutic substances. Although little was known about the absorption given by mouth, Gentles felt the low mammalian toxicity and fungistatic effect *in vitro* warranted investigation for possible systemic effect. In animals infected with *Microsporum canis*, Gentles observed a beneficial effect clinically within four days after daily therapy was started. Gentles gave the following description of his observations:

> "It was noted under Wood's light the infected hairs of treated animals fluoresced only at the tips and microscopic examination revealed that the dermatophyte was present only in this upper part of the hair shaft. The uninfected basal portion was sharply delimited from the invaded part and malformation of the tips of the dermatophyte hyphae, characteristic of the effect produced by griseofulvin on susceptible fungi, was seen in a number of hairs cut longitudinally. It seems clear that the uninfected part of the hair had been formed during the treatment with griseofulvin and was resistant to invasion by the dermatophyte."

By the eighth day his treated animals were virtually free of infected hairs; whereas almost all of the hair follicles of the untreated group were heavily invaded. In this publication Gentles referred to the as yet unpublished but successful treatment by Lauder and Sullivan of *Trichophyton verrucosum* ringworm induced in cattle.

Oral use on Human Subjects

The interest of all dermatologists was excited a few months later when almost simultaneously, but in the order listed, Riehl [13] in Austria, Williams [14] in England, and Blank and Roth [15] in the United States reported their near-miraculous experiences with griseofulvin administered orally to human subjects. Pardo-Costello and his associates have been credited [16] with having used this compound, in 1957, with a high degree of success but actually this team was prompted by the above listed reports to try oral administration. Subsequent trials from over nearly all of the world, would seem to justify the initial optimism of Gentles, for the efficacy of orally administered griseofulvin has been acclaimed almost unanimously.

Mode of Action

The mode of action of this antibiotic is still not fully known. Early *in vitro* studies showed that griseofulvin disturbs the metabolism of fungi by direct contact.[17] When the fungous hyphae exhibit the curling effect, weak spots appear on the cell walls in a disorganized manner and frequently rupture. There is no diffusion through the hyphae, as shown by the fact that hyphae contiguous with the inhibited zones, but not themselves in direct contact with the drug, develop normally. These effects have been observed on a representative range of filamentous species which have chitinous cell walls, whereas those which have cellulose walls or walls of other polysaccharides (e.g. yeasts) do not exhibit this morphogenetic disturbance.[4]

This may explain, at least in part, the insensitiveness of *Candida albicans* and *Cryptococcus neoformans* to griseofulvin as observed by Roth.[15] Without explanation is the similar lack of sensitivity observed by this same investigator with other of the systemically pathogenic fungi which possess chitin, viz., *Hormodendron compactum, Phialophora verrucosa, Blastomyces dermatitidis, Blastomyces brasiliensis* and *Histoplasma capsulatum.* This might also explain the ineffectiveness of griseofulvin in the treatment of tinea versicolor which is caused by *Malassezia furfur*, a yeast. For whatever the reason, the activity of griseofulvin against human pathogens seems limited to the dermatophytic agents of superficial skin diseases. More recently, Roth [15] confirmed the fungistatic action of griseofulvin. Fungous pellets suspended in griseofulvin for as long as fourteen days and then washed thoroughly, produced normal colonies when plated on an antibiotic free medium. He did find one of the dermatophytes, *T. rubrum*, to be completely inhibited but at concentrations not likely to be attained *in vivo.* Therefore, it is likely the activity in man is fungistatic. It is noteworthy that Roth did not, however, encounter development of resistance to the drug *in vitro.* Finally, griseofulvin is not antibacterial

and its prolonged administration will not disturb the normal intestinal flora.[17]

That griseofulvin is quickly absorbed into the blood has been shown by Bedford and co-workers [18] using spectrophotofluorometric methods. Peak blood levels were found four hours after a single oral dose. Griseofulvin was also found in the urine.

Gentles, Barnes and Fantes [19] postulated the deposition of griseofulvin into the keratinous layer of the epidermis and subsequent penetration into the hair follicle where it is somehow incorporated into the keratin of emerging hair shafts. They further postulated the latter should contain a band of resistant keratin from which griseofulvin could be extracted. In support of their hypothesis they were able to elute griseofulvin from hair clipped from treated animals. Whatever the exact mechanism, it seems clear that the eradication of dermatophyte infections by griseofulvin is due to its incorporation into keratinous tissues.

Methods of Assay

Many *in vitro* methods have been employed which utilize the curling effect to assay concentrations of griseofulvin in various tissues and fluids of both plant and animal (e.g. Brian, *et al* [5]). More recently, however, Roth and Blank [20] have developed an ingenious method of bioassay to demonstrate the presence of griseofulvin *in situ* in the skin. Multiple applications of pressure sensitive tape were performed in one area of the forearm until the surface of the tape no longer showed the presence of cornified cellular elements. At this point the skin assumed a glistening appearance, indicating penetration of the upper region of the stratum mucosum. By this method the stratum corneum could be stripped to any desired level. Fungal spores were deposited in the stripped area to be assayed. A plastic ring was then placed over the area and filled with melted agar which was permitted to solidify. The agar-filled ring was held in contact with the arm for fourteen to sixteen hours by means of a simple bandage. After this time the plastic ring was removed and examined microscopically. The presence of griseofulvin was indicated by distortion of the germinating spores.

Using this technique, they found griseofulvin at the base of the stratum corneum in forty-eight to seventy-two hours after initiation of daily 1 gm. doses. It was not, however, transported through the lower 25 per cent until six to twelve days and was not detectable in the mid-zone of the horny layer until twelve to nineteen days of therapy. Persons receiving a gram of the antibiotic daily for periods ranging from eighteen to fifty-six days failed to demonstrate conclusively the presence of active griseofulvin at the intact skin surface upon the termination of therapy. It has been suggested that griseofulvin may be leached from the outer skin surfaces by bathing.[21]

Limitations

Although there can be no doubt that this agent offers the first hope for consistent cures of ringworm, only the most naive would not anticipate the recognition of limitations, if one can judge from experience with other antibiotics. One might even predict a period of disillusionment with griseofulvin. Since the action is only fungistatic, griseofulvin may be proved eventually merely to complement the defenses of the host and thus be most effective in those diseases in which man's own resistance is highest. In fact, having opened the vistas, the greatest contribution of griseofulvin eventually may be only that of having introduced a new era in the treatment of superficial fungal diseases. Wilson [22] has said:

> "The ideal antifungal drug even for superficial mycoses would seem to be one which could be safely administered internally in amounts sufficient to endow the cells eventually destined to produce keratin with the power to resist fungi completely, this power persisting as they become keratinized, and the drug thus exerting its effects from within outward."

Griseofulvin has proven this concept.

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Importance of Introducing the Study of Hygiene into the Public and Other Schools

Stanford E. Chaille, M. D.

* * *

Surely, the "Good old times" did not exist for the human race at any of these periods, nor, indeed, at any time. Whoever maintains the contrary can still put it to the test * * * either by visiting savage Alaska, where women and children, as witches, are still tied to trees and left to starve or are hacked to death with knives; or by visiting barbarous Russia, where Jehovah's persecuted children now moan out the same agonizing cries, which were once heard to be heard in every Christian land. Many, who believe that they themselves have seen the times grow worse, have been misled by the fact that there have always existed evils, which, concealed from or unobserved by youth, are disclosed to experience so gradually that increasing knowledge is readily mistaken for an increasing growth of these evils.

Civilized men have undoubtedly made progress, and those of this generation greatly err, who, in their veneration for an ancient, therefore younger generation, forget that we ourselves belong to the oldest, therefore the most experienced, and therefore, in spite of all our monstrous follies, the wisest generation which has yet lived on earth.

New Orleans M. & S. J. 10:734 (April) 1882.

III. Tinea Capitis and Tinea Corporis

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CUTANEOUS infections caused by the dermatoycoses are prevalent, and are so varied in etiology and frequently mimicked by other cutaneous disorders which are not of fungal cause, that accurate diagnosis is of primary importance when a skin infection suspected of being of fungus cause is seen.

However, differentiating one kind of infection from another requires more than mere observation of the lesion, even for the experienced observer. We must first establish the fact that we are dealing with a fungus infection, then identify the pathogenic fungus itself, and subsequently keep an accurate check on the progress of therapy. For this the help of laboratory procedures with microscope, culture media, and Wood light is necessary. I would like to briefly summarize the methods which should be employed.

Method of Diagnosis

Whether the scrapings of skin, hair, etc. are to be used for direct microscopic examination or for a culture, it is advised that the skin be cleansed with 70 per cent alcohol prior to the examination so as to reduce the possibility of contaminants. The scraping is done with a scalpel, and the more material obtained the more likely a good examination.

From lesions of tinea corporis on the body or extremities, the active fungus is often more abundant at the periphery or advancing edge of the suspected lesion; whereas the center of the lesion is frequently fungus-free. The tops of vesicles are rich in fungus, but in some infections, the fungi are deep in the horny layer of the skin. In examination of the scalp, it is preferable to collect hair that is fluorescent under the Wood's light, although it should be remembered that not all organisms are fluorescent. Suspected hairs and scales from lesions on the scalp should be removed with the aid of a magnifying glass and the Wood light.

The specimens which are collected—scales, vesicles, hair shafts, or pus smears—are placed in the center of a glass slide and a few drops of 20 per cent potassium hydroxide are added and the preparation covered with a cover slip. The slide is warmed and then examined microscopically. Although positive findings can be made from these direct examinations, specific identification of the fungus must await cultures. This is particularly true because these various species of *Microsporum, Trichophyton,* and *Epidermophyton* present almost identical appearance with similar mycelia. However, in infected hairs, the arrangement and location of the spores offer a clue as to the infecting organism. The *Microsporum* forms a mosaic sheath of small spores that surround the outside of the hair shaft, whereas the *Trichophyton* shows large spores arranged in parallel rows or chains inside the shaft of the hair.

The standard culture media is Sabouraud's dextrose agar, although modifications of this formula are available commercially. The cultures are kept at room temperature for from two to four weeks. Identification of the various fungi is usually easily done by one who is experienced in their examination.

The Wood's light is not only a useful tool for early diagnosis of tinea capitis and for aiding collecting material for laboratory examination, but is also a great help in evaluating the progress of treatment and determining when all sites of infection are eradicated.

It should be pointed out, however, that fluorescence does not become obvious until some time after the onset of the infection, that in inflammatory lesions the hair stumps may be buried and fluorescence not easily observed, that non-fluor-

escent strains of *Microsporum* are occasionally encountered, and that during the course of treatment with topical medication, fluorescence pales and may be masked by the presence of a local medication. Hairs infected with *Microsporum audouini* and *Microsporum canis* usually show a bright yellowish-green fluorescence, whereas other pathogenic fungi either fail to fluoresce or do so weakly.

Differentiation

Tinea capitis is an important and widespread disease which constitutes a public health problem in many parts of the country and though it does not produce much disability, except in inflammatory infections, it is disfiguring, and the affected patient is inconvenienced by school health regulations and by burdensome treatment. Tinea capitis is caused only by species of *Microsporum* and *Trichophyton.*

M. audouini produces the most common type of tinea capitis in the United States and is principally a disease of children. It is said to be commonest in children between the ages of 3 and 8 years. The resistance shown by adults to infection with *M. audouini* has been attributed to a higher content of fungistatic fatty acids in the sebum after puberty. Although this theory is not completely proven, it has gained wide support and is logical since sebum has been shown to be fungistatic in vitro. The infection is very rare in adults and is likely to be of shorter duration than it is in children, and it is widely believed that the infection undergoes spontaneous remission at puberty. However, this does not occur rapidly.

Although by no means always true, transmission of the infection occurs most easily under conditions of crowding and poor hygiene, and is seen more frequently in children from poorer homes. Males are infected more frequently than are females, and this is perhaps because the shortness of the hair in the male allows the spores to reach the scalp much easier. It has been shown experimentally that dropping of the spores on the scalp's surface without trauma does not produce infection. Although direct contact is the most important source of infection, contaminated barber's instruments or combs may transmit the disease readily since the spores are implanted into the scalp with associated mild trauma. A great deal has been said about the role which theatre seats play in transmitting the infection, but it is the belief of many that this is of lesser importance than has been claimed.

The infected areas on the scalp are round or oval, and often fuse to form gyrate patterns, and are characterized by broken off hairs and partial alopecia. It is unusual to see ringworm of the scalp which is confined to a single patch, and it is also uncommon to see involvement of more than 50 per cent of the scalp's surface. In the early stages of the ringworm infection, while the patch is enlarging, the lesion may in all respects be similar to ringworm infection on the skin with an "active", slightly elevated border with the central area showing only scaling.

Characteristically, tinea capitis due to *M. audouini* is noninflammatory throughout the course of the disease. However, in a small percentage of cases, the lesion may be noninflammatory at the onset, and may develop later as a boggy tumefaction called a kerion.

It has been shown that the fungal elements rapidly reach a lower level in the hair which corresponds to the upper limit of the keratogenous zone of the hair matrix, a point about 0.5 mm. above the papilla, where the cells, although almost completely keratinized, still retain their nuclei. This zone, as well as the hair bulb itself, is never invaded and this demonstrates that the ringworm fungi cannot proliferate in viable or semiviable tissue.

Each infected hair is looked upon as a separate fungus colony, confined completely to the dead portions of the hair, and there the growth of the fungi downward and of the hair upward remain in perfect balance. Should the fungus fail to extend downward as fast as the hair grows, it would be pushed outward and

discarded. In addition to the growth of the fungi within the hair, the filaments which are close to the cuticle send out short external branches which break into chains of cuboidal, thick-walled spores, which form the ectothrix sheath. Although each infected hair is therefore surrounded by spores, these are dormant and have nothing to do with maintaining the infection in a particular hair, but do serve to disseminate the disease.

Tinea capitis due to *M. canis* is much more easily treated than *M. audouini* infections because the course of the disease is much shorter and there is a greater likelihood of an inflammatory response. The chief source of infection is domestic animals, particularly cats, hence the history of animal contact is ordinarily obtainable. The *M. canis* infection may remain noninflammatory throughout the course of the infection and thus be indistinguishable in all features from cases of *M. audouini* infection, except for a shorter duration.

Frequently, however, inflammatory changes develop with the resulting boggy tumefaction, which we call a kerion, with folliculopustules appearing over the surfact of the lesion, the hairs being spontaneously desquamated with temporary baldness resulting. Although the appearance of the inflammatory reaction may be so severe as to cause alarm and anticipation of permanent alopecia, this is quite uncommon, and it results only if there is severe secondary bacterial infection.

The disease regresses shortly after the onset of the inflammatory changes, but the shorter duration of this infection cannot be attributed entirely to this characteristic.

Tinea capitis due to *M. gypseum* is extremely rare and when it occurs, intense inflammatory kerions are present. Definitive diagnosis requires culture, and the treatment is similar to that of other varieties. Tinea capitis due to *T. mentagraphytes* is almost always associated with intense kerions, and is a rare condition. Again, culture is required for accurate diagnosis.

Tinea capitis due to *Trichophyton tonsurans* is highly prevalent in Mexico and is slowly spreading into certain states of the United States, specifically California and Texas. It is characterized by extreme chronicity and by easy escape from detection. It promises to become an entrenched Public Health problem. Although contagiousness is not great except under conditions of intimate contact, most or all of a family group acquire the infection. Moreover, adults are susceptible to this infection, although it usually occurs in children.

Therapy with Griseofulvin

The new systemic treatment with griseofulvin is the most exciting development in many years, and we can certainly say that griseofulvin is very efficient in tinea capitis, with brilliant results being obtained whether it be caused by *Microsporum canis* or *audouini*, or by *Trichophyton tonsurans*, or whether it be favus. Full dosage of this drug is required for treatment and is adjusted for weight of the patient.

After one week of therapy, little change is observed in the infected sites. At two weeks, fluorescence under Wood's light is in some cases faded to a fainter green, and by this time hairs are more resistant to plucking. After three weeks, the fluorescent zone of the infected hairs has grown out sufficiently to permit it to be clipped off. At twenty-eight days of treatment, some patients are completely Wood's light negative, and in others only scattered faintly fluorescent hairs persist.

Because faintly fluorescent hairs have been present for as long as eight weeks after the beginning of treatment and fungus-bearing stubs, scales, and debris have remained for as long as three months under continued therapy, clipping and shaving of the hair from the affected areas is advised beginning at about the twenty-first day and continued until a cure is obtained. Scrupulous cleanliness facilitates the removal of infectious scales and debris. It is advised that treatment be maintained until two cultures taken at

one week intervals are negative, and that a third culture two weeks after discontinuance of treatment be negative before the patient is discharged.

An incidental, but important, contribution of griseofulvin is in helping to reduce the necessity for radiation therapy. X-ray epilation in tinea capitis, particularly that caused by *M. audouini*, which for so long was a necessary procedure, has been rendered almost obsolete by the use of this anti-fungal antibiotic.

Other Therapeutic Measures

Certain other measures which are worthwhile in the treatment of tinea capitis are (1) clipping the hair short in boys, (2) the application of an anti-fungal agent locally, (3) training the child to use his own comb and brush exclusively, (4) the wearing of a stocking cap (or similar head covering) for the protection of other children, and (5) lastly, enlightining the parents on the significance of the disease and on the need for adequate treatment of the infected child.

Ringworm Infection of Other Areas

Superficial ringworm infections of areas other than the scalp, hands, feet and groin may appear in widely differing and sometimes confusing morphologic variations. Such lesions may vary from a mildly erythematous simple scaling process to massive and ulcerating granulomas. Any area of the glabrous skin may be involved and the infection may be caused by practically all of the various species of *Trichophyton* and *Microsporum*.

Unquestionably, heat and moisture strongly contribute to such infections, and in our temperate climate such infections are seen far more frequently during the hot summer months. The lesions ordinarily tend to remain localized and few in number, but may become extensive and confluent.

Fungus infections on the glabrous skin occur particularly in persons who may be repeatedly exposed to infected domestic animals, such as cats, or in persons with chronic fungal infections of the feet or nails, and in persons who are in close contact with others infected with certain types of fungus infections, particularly children with tinea capitis.

Ringworm infections on the non-hairy skin may mimic a great variety of other dermatoses, and sometimes it is almost impossible to make such a diagnosis without the aid of the microscope. Particularly, fungus infections may resemble seborrhoeic dermatitis, pityriasis rosea, psoriasis and certain granulomas. The reverse is also true, and we think that it is necessary that patients who are to receive this drug are actually infected with fungi.

Griseofulvin should be used with an appreciation of its real value, but also of its distinct limitations in superficial fungus infections. The drug is fungistatic, not fungicidal, and has proved effective against fungi belonging to three genera of the dermatophyte group: *Trichophyton, Microsporum* and *Epidermophyton.* A rather common superficial fungus infection, called Tinea versicolor, is not affected by the drug, and it is also ineffective against monilial infections, and the deep mycotic infections.

Griseofulvin is absorbed into growing basal cells of the epidermis as they become keratinized, and causes "curling" and stunts the hyphal tips of the invading fungi. With the growth checked by this fungistatic action, the fungi are cast off as keratin grows out and sloughs off. Healthy tissue replaces the infected keratin. The same action has been indicated as occurring in the infected hair of tinea capitis as described in previous paragraphs.

Indications

As has been illustrated earlier, it is extremely easy to ascertain whether or not a disease is caused by fungi by means of scraping and microscopic examination. Where there is only a single spot of tinea corporis, it is felt that griseofulvin is not indicated, inasmuch as there are still good topical medications for isolated body ringworm. On the other hand, if there are multiple areas and especially if the organ-

ism has been shown to be exceedingly resistant to local treatment, then certainly griseofulvin should be used along with proper local treatment. The most spectacular and most satisfying short term results reported so far with griseofulvin have been in patients who had fungus infections involving the glabrous skin. Probably this is most notable in those infections caused by *Trichophyton rubrum*. Until now, no therapy appeared to influence the eventual course of this disease significantly. Typically, this *T. rubrum* infection is characterized by a lack of spontaneous healing and by chronic extension, which may result in the formation of large scaling plaques which may resemble those of seborrhoeic dermatitis or of psoriasis with minimum scaling.

Patients with tinea corporis usually gain subjective relief after the fifth day of treatment with griseofulvin regardless of the causative organism or the duration of the condition, and involution of the lesions is complete and cultures are negative in from four to nine weeks of treatment. If symptomatic relief has not been observed in from three to seven days after the beginning of treatment, the diagnosis of a fungus infection due to a susceptible organism should be further checked by laboratory means.

The presently recommended dosage of griseofulvin for adults is 1 gram daily and for children the dosage is varied according to body weight. Of course, the length of therapy varies with the severity, the site of the infection and the response to treatment.

Our Yellow Fever, Sugar and Cotton Crops

Stanford E. Chaille, M. D.

Although yellow fever has greatly injured the past and threatens the future prosperity of New Orleans, yet, this community has, on no other practical subject, nursed so many inherited prejudices, and entertained so many unfounded and contradictory beliefs.

* * *

In an editorial, published January 10th, 1882, in that able and influential daily newspaper, the N. O. Times-Democrat, the following statement is made: "It has always been a noticeable fact that the best years agriculturally were the worst in point of comfort and health, just as the yield of sugar has been highest during epidemic visitations."

* * *

Cholera visited New Orleans first and most severely in 1832-33, yet, the sugar crops of these years were much exceeded by the succeeding healthy year, 1834.

* * *

During the past 60 years, New Orleans was ravaged by thirteen violent epidemics, viz: in 1822, '29, '33, '37, '39, '41, '47, '53, '55, '67, and '78. In only six of these years was the sugar crop unusually good. Therefore, the statement that "this yield of sugar has been highest during epidemic visitations" of yellow fever expresses only a somewhat frequent accident, and certainly not a general truth.

New Orleans M. & S. J. 10:683 (March) 1882.

IV. Tineal Infections in Intertriginous Areas and of the Nails

HENRY W. JOLLY, JR., M.D.
Baton Rouge

INTERTRIGINOUS dermatitis may be caused by many conditions other than tineal infections. Now, more than ever, a specific etiologic diagnosis is necessary in these areas for proper treatment.

Etiologic Diagnosis

In the axillae, intertriginous dermatitis may be due to seborrheic dermatitis, contact dermatitis (particularly notable are those due to deodorants and clothing), infection with the ordinary dermatophyte with which we are particularly concerned here today, erythrasma, moniliasis and true intertrigo with or without secondary bacterial infection.

The same differential diagnosis more or less holds true under the breasts with the exception of the examples of contact dermatitis mentioned above.

In the groin and peri-anal areas, when one studies a case of intertriginous dermatitis, one must consider Tinea, Monilia, neurodermatitis, Psoriasis and true physical intertrigo. The tineal infection may be either acute or the classical old chronic tineal infection (the so-called eczema marginatum) of the groin and butttocks with lichenified, hyperpigmented broad centers and excoriated papular borders.

On the feet, the intertriginous areas between the toes present a peculiar problem. Here is one area that, in the past, one felt rather secure in making a clinical diagnosis of tineal infection. It has been my experience that occasionally a typically tineal dermatitis between the toes clinically would repeatedly fail to show fungi either on a direct smear or on culture. A similar experience has recently been reported when a fairly large group of such cases were surveyed mycologically. The differential diagnosis here may lie between Tinea, Monilia, Psoriasis, contact dermatitis (particularly to shoes), dyshidrosis and the unclassified bacterial eczematous reactions.

With the advent of Griseofulvin, more than ever before, a positive diagnosis must be made by either a direct smear examination and/or a culture before treatment with this drug is started. The reasons are self evident for if the infection is not due to certain species of fungi, no improvement is noted. In addition, this is an expensive drug and valuable medical time and money will be wasted in cases where there is no rationale for its use.

Treatment

In general, results of treatment with Griseofulvin of intertriginous tineal infections with the usual organisms *(Trichophyton mentagrophytes, Trichophyton rubrum* and *Epidermophyton floccosum)* are good and relatively rapid when adequate doses are given. In adults, 1 gram per day, usually divided into four doses of 250 mg. each or two doses of 500 mg. each is the optimum dose. In children, approximately 25 mg. per kilogram of body weight is the optimum dose.

The symptoms, primarily itching, subside in a few days as a rule. Clinical improvement is manifest in seven to ten days and both clinical and mycological clearing can usually be expected in two to four weeks.

There is an exception in the case of the areas between the toes. Even after weeks of therapy, persistent fissures and maceration may still remain. These may or may not be mycologically positive which would bring one to a very academic question of whether the proven fungus infection were truly a primary disease or a secondary situation. None the less, this, the areas between the toes is one of slow response to the drug under question and a great potential focus for reinfection or relapse whichever the case may be.

It has not been my experience that all very acute infections will respond to Gris-

eofulvin. In some instances, I have had to resort to so called non-specific treatment of acute dermatitis initially and then use Griseofulvin. However, I have had several instances of acute tineal infection with lymphangitis and lymphadenitis which have responded to Griseofulvin alone. I recall one acute case where the patient developed an autosensitization reaction while on Griseofulvin.

Local treatment may be used as an adjuvant to systemic treatment, the local treatment being non-Griseofulvin in character for local Griseofulvin has not been proven to be of any value. In all the intertriginous areas, a fungistatic dusting powder day or night or the use of a fungistatic dusting powder in the day and a fungistatic cream at night may decrease the time of treatment necessary or eradicate persistent foci such as the areas between the toes.

Tineal Infections of the Nails

Diseases of the nails offer a diagnostic challenge in many cases. Even the clinical picture so characteristic of tineal onychomycosis may be perfectly imitated by psoriasis, yeast infection, hand eczemas, onycholysis, paronychia congenita, trauma, etc. In general, the picture is one of dulling or loss of lustre of the nail, separation of the nail plate from the nail bed with accumulation of cellular debris in this space, ultimately erosion and distortion of the nail plate.

As a rule, Tinea in the beginning is relatively non-inflammatory at the sides or the distal end of the nails, in distinction to monilial infections which usually start as a paronychial inflammatory reaction. Either organism should be identifiable in a smear and/or culture. These procedures will also serve to rule in or out the other disease processes in the differential diagnosis.

Once the diagnosis has been established of tineal etiology, it will usually be *Trichophyton mentagrophytes, Trichophyton rubrum* or *Epidermophyton floccosum*. Treatment with Griseofulvin should be effective. There seems no reason why a dosage above 1 gram per day should be needed even in these cases and proportionate doses in children. They do require longer treatment periods than tineal infections of the skin. There is some individual variation in nail growth but in the beginning it was thought that for a diseased nail to be completely replaced normal nail requires three to four months of continuous oral therapy for finger nails and six to eight months for toenails. Subsequently, these time estimates have been prolonged.

Concomitant local therapy is probably beneficial both from the standpoint of final cure and to reduce the viability of the distal organisms still fairly distant from actual contact with Griseofulvin. These still viable organisms are a constant worry as far as reinfection is concerned although it is granted that it is rather unlikely that this will occur during active treatment. Removal of the nails is advocated by a few authors but not by most and I am of the latter school of thought. I believe that cutting the nails very short or grinding them down with a dental burr is of definite value. After this, the local applications of solutions containing fungistatic agents or creams containing fungistatic agents is probably wise.

Here again as was stated before under the subject of intertriginous infections, reinfections are possible, and even probable, particularly in people who apparently have no immunity or resistance to these types of fungus infections.

V. The Reactions to Griseofulvin

C. BARRETT KENNEDY, M. D.*
V. MEDD HENINGTON, M. D.†
WILLIAM J. PERRET, M. D.
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IN the relatively short time that Griseofulvin has been on the market it has emerged as the drug of choice for superficial fungus infections due to dermatophytes. Its wide acceptance is not only due to its efficacy as a fungistatic agent but also, and more remarkably so, to the fact that reactions to it have been almost nonexistent. To our knowledge there has not been a fatal accident from this drug and nearly all of the reactions that have been reported have been in the nature of side effects rather than true reactions. As far as we know, this drug was subjected to the most careful laboratory and clinical investigative studies of any drug up to its time before being released for prescription use on private patients.

Laboratory Studies

In the experimental animal sublethal doses arrest mitosis in rapidly growing tissues. This suggested the advisability of performing periodic blood counts when administering Griseofulvin to humans. Kirk, et al,[1] did over 353 complete blood cell counts in children who received the drug and found no evidence of bone marrow depression. There have been a few isolated reports of transient leukopenia from Griseofulvin. Pipkin[2] found that his patients developed leukocytosis in response to intercurrent infection during Griseofulvin induced leukopenia.

Massive doses of Griseofulvin given intraperitoneally or intravenously have suppressed spermatogenesis in guinea pigs. Doses comparable to those in humans do not cause changes in the testes or impair fertility.[6]

Blank[3] did multiple sperm counts in a series of 15 patients and found no significant depression even in patients who had been taking Griseofulvin in a dosage of 1 gram daily for six months.

Sternberg[4] related that 92 patients with a variety of superficial fungus infections were treated with no clear-cut clinical or laboratory evidence of toxicity necessitating the permanent discontinuance of therapy. A variety of minor complaints developed during therapy but in a majority of instances were transient. He states that it was deemed wise for two of his patients to discontinue therapy temporarily because of the development in one of a generalized pruritis associated with a diffuse macular eruption, and in the other, because of the development of small urticarial lesions on the lower extremities. The drug in both instances, however, was reinstituted without return of symptoms. He also states that no significant abnormalities were observed in any of a series of laboratory studies obtained throughout therapy, including complete blood count, urinalysis and in some instances liver function tests. The side effects were blurring of vision, diarrhea, nausea, mild malaise, numbness of toes, urticaria, localized vesicular eruptions and generalized pruritis, macular eruptions, headache, dryness of the mouth, polyuria and thirst. Blank's[5] experience in a series of 200 patients was similar. He found headaches and minor gastrointestinal disturbances in a few cases and urticaria in 2. Side effects encountered by Goldman[6] and others have been much the same. Goldman reported that patients who had ulcerative colitis experienced some aggravation of their symptoms. Transient albuminuria has also been observed.[9]

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In the year book of drug therapy [7] it is stated that Griseofulvin is not an antibacterial antibiotic, and prolonged administration will not disturb the normal intestinal flora. Perhaps this is the reason we have had fewer cases of diarrhea.

Misuse of the Drug

It would be wise to say something about the misuse of this drug. It is not effective as a topical agent. It is not effective in tinea versicolor. In yeast infections there is some suspicion that the infection may be aggravated in some manner by this drug. We have seen many cases of yeast infections of the nails in which the druggists and lay people have prescribed Griseofulvin because they think all nail disorders are fungus infections and because Griseofulvin is good for fungus infection they reason that it is good for all types. We think it makes monilial nail infection worse.

It is doubtful that deep mycotic infections are affected by this drug, with the possible exception of Madura foot due to *Nocardia braziliensis,* as reported by Latapi.[8]

Control Studies

We agree with Goldman when he says that it can be stated that this new antibiotic will indeed produce a much needed renaissance in medical mycology. It is impossible to treat cases adequately with oral Griseofulvin without good mycological control studies. One should have cultures that show a true fungus and not yeast. We demonstrate the fungus by direct scraping or by culture before prescribing Griseofulvin.

With time we must know more about chronic toxicity because in some cases the need for long continued therapy is present. We need to know more about the effects of Griseofulvin on the patient's immune mechanisms. We already know that the drug is less effective in patients taking large doses of steroids, becoming more effective when the steroid dose is reduced.

Conclusion

The most significant conclusion that can be drawn from a study of the side effects and reactions to Griseofulvin is that it is a safe and valuable addition to our armamentarium for the treatment of superficial fungus infections. Until now no serious complications from its use have been reported.

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Editorial

Officers of the Louisiana State Medical Society And the House of Delegates

The membership have cause for congratulation and satisfaction in the officers chosen for the coming year at its meeting on May 8th, 9th, and 10th.

Those elected to office have ability and experience such as will make them capable of the leadership, guidance, and direction, which the Society will need in the months ahead.

The President is Dr. Cuthbert J. Brown, a well known surgeon of New Orleans, who has acquitted himself nobly in the service of organized medicine over a period of many years. He is a Past President of the Orleans Parish Medical Society. He has served in various capacities as a member of the Executive Committee of the State Society. He has been Chairman of the Legislative Committee of the State Society for Congressional legislation, and has a broad contact with the problems of practice, as well as with the socio-economic problems of organized medicine. In the position of leader for the next year, the physicians of the State can take great satisfaction in his qualities of judgment and stability.

The President Elect is Dr. Ralph H. Riggs of Shreveport, who has had many years of experience both in his local and State Society affairs. He has been President of the Caddo Parish Medical Society and has continued to be active and effective in its affairs. He has served for years in various capacities on the Executive Committee, has been an alternate and a delegate to the House of Delegates of the American Medical Association, and is nationally known as a surgeon in the field of rhinology. His breadth of view and sincere good will for what is best in organized medicine is well known.

The First Vice President is Dr. J. Theo. Brierre of New Orleans, a radiologist. Dr. Brierre has long been active in the Orleans Parish Medical Society. He

is President of that Society at the present time, and has served in various capacities as a member of the Executive Committee of the State Society. His energy and experience commend him to the membership in this important position.

Dr. Gordon W. Peek of Baton Rouge is the Second Vice President, and comes to the Executive Committee with a long record of creditable activity in leadership of the East Baton Rouge Parish Medical Society of which he is a Past President. He is a surgeon with a long record of knowing what is best for patients and what is best for organized medicine.

The Third Vice President is Dr. Eugene H. Countiss of New Orleans, a gynecologist, who was Chairman of arrangements for the recent successful meeting of the State Society in New Orleans. Dr. Countiss has been active in the Orleans Parish Medical Society for over twenty years, has held many offices in it, and has been a member of the Executive Committee of the State Society in various capacities. His poise, judgment, and keen sense of ethical values fit him for this important position on the Executive Committee.

Dr. C. Grenes Cole continues as Secretary-Treasurer providing satisfaction and security to the membership, with the blessings of all. His mature judgment, vast experience, and never-ending resourcefulness continue to help in the delineation of policy and in the achievement of difficult tasks.

The memberships in the Executive Committee are otherwise unchanged. Dr. O. B. Owens becomes Past President in which situation he will continue to give valuable aid and counsel and allow this Society the benefit from his experience and highly successful years in his activities as President.

Dr. Charles B. Odom continues as Chairman of the House of Delegates, in which position the membership is highly appreciative of the dispatch and consideration given to the handling of a difficult assignment.

Dr. H. H. Hardy of Alexandria is again Vice-Chairman and continues to give valuable aid and assistance to the Chairman and to the Executive Committee.

Drs. Guy R. Jones of Lockport, John L. Beven of Baton Rouge, J. Y. Garber of Lake Charles, and R. E. C. Miller of Alexandria, were re-elected in their positions as Councilors for the Third, Sixth, Seventh, and Eight Districts. The composition of the Council is unchanged and it is in a position to continue its important functions as both the watch dog and the conscience of the Society. We are fortunate that the Council has members of such broad experience and proven ability.

Additional members who are not actually officers of the Society in their new positions, but who have served the organization long and well are Drs. Arthur Long and Rhett McMahon, who have been elected to the House of Delegates of the American Medical Association. Both are Past Presidents of the State Society and both will be valuable representatives for the Society in that body. This gives the Louisiana State Medical Society three delegates on the floor of the House of Delegates of the American Medical Association, where their effectiveness is in direct proportion to the square of the number present.

The physicians of Louisiana can feel that the officers they have chosen will do credit to the organization.

ORGANIZATION SECTION

The Executive Committee dedicates this section to the members of the Louisiana State Medical Society, feeling that a proper discussion of salient issues will contribute to the understanding and fortification of our Society.

An informed profession should be a wise one.

ABSTRACTED MIINUTES HOUSE OF DELEGATES

May, 1961

Minutes

Minutes of 1960 meeting and special meeting of *House of Delegates* on March 5, 1961, approved as recorded.

Minutes of *Executive Committee* since 1960 meeting of House of Delegates, approved as recorded.

Special Order

Announcement of appointment of Dr. Felix A. Planche as *member of the Committee on Budget and Finance.*

Addresses by Dr. Edward R. Annis, Miami; Dr. W. W. Bauer, Chicago; Dr. Roy T. Lester, Washington, D. C. and Mr. St. Clair Adams, New Orleans.

Introduction of *new members of House of Delegates.*

Greetings from representatives of *Woman's Auxiliary* of the State Society.

Roll of *members who died since 1960 Annual Meeting* read and members of House stood in honor of these members.

Message to Dr. Edwin L. Zander, Dr. Emmett L. Irwin and Dr. W. Robyn Hardy in re *illness and absence from meeting.*

Flowers to Mrs. O. B. Owens, *wife of president of the State Society,* absent from the meeting due to emergency surgery.

Announcement of *scientific exhibit awards:* First place, Drs. Buchtel, Kirgis, Jackson, DeCamp and Ochsner. Second place, Drs. Adriani and Sessions.

Reports without Recommendations

President: Referred to Committee on President's Report and report of this Committee commending the president and heartily endorsing his actions, was accepted.

Following *reports accepted as printed:* Secretary-Treasurer, Chairman of Council, *Councilors:* Second District, Third District, Fourth District, Fifth District, Sixth District, Seventh District, Eighth District; *Committees:* Accreditation of Hospitals, Aid to Indigent Members, Alcoholism, American Medical Education Foundation, Arrangements—1961 Annual Meeting, Blood Banks, Budget and Finance, Child Health, Chronic Diseases, Committees, Congressional Matters, Department of Public Welfare (Advisory Committee, Domicile, Gamma Globulin and Salk Vaccine, Geriatrics, Historian, Hospitals, Industrial Health, Lectures for Colored Physicians, Liaison with Louisiana States Nurses Association, Maternal Welfare, Mediation, Medical and Hospital Service in re Insurance Contracts, Medical Defense, Medical Education, Medical Testimony, National Emergency Medical Service, Neuropsychiatric Service at Charity Hospitals, Public Health of the State of Louisiana, Revision of Charter, Constitution and By-Laws, Rural and Urban Health, Scientific Work, State Hospital Policies and Medical Indigency, Tetanus Protection, Woman's Auxiliary.

Other reports, containing no recommendations, accepted: Louisiana State Board of Medical Examiners (announcement that Dr. Charles B. Odom had been appointed to replace Dr. E. L. Leckert, resigned); Public Relations Counselors, Legislative Consultant and delegate to American Medical Association.

Reports with Recommendations

Past Presidents Advisory Council: 1. A message be sent to Dr. E. L. Zander, who is ill, wishing him a speedy recovery: Referred to Committee on Resolutions. 2. The House of Delegates urge the sheriffs and district attorneys of the various parishes to enforce the provisions of the Medical Practice Act and the House of Delegates request the component societies to contact their sheriffs and district attorneys to endeavor to influence them to enforce the Medical Practice Act: Approved. 3. A bronze plaque be struck and presented to Dr. E. L. Leckert in the name of the Society in recognition of volunteer service to Medicine in this City: Approved. 4. This plaque be placed in the domicile of the State Medical Society and a framed photograph of same be sent to the recipient: Approved. 5. The President of the Society appoint a special committee to study the feasibility of establishing a Hall of Fame for Medicine in Louisiana and that this committee report back to the next regular meeting: Approved. 6. The House of Delegates approve the Kerr-Mills Bill and that it condemn the Anderson-King Bill: Approved.

Councilor of First District: 1. (Reworded at time of meeting, as follows): (a) An active member who has reached 70 years of age and has been an active member of the State Society for 25 years will be made an active dues exempt member with all rights and benefits of an active member as long as he is practicing; (b) An associate member who has reached 70 years of age and has been an associate member of the State Society for 25 years will be made a dues exempt member with all rights of an associate member: Referred

back to the Committee on Revision of the Charter, Constitution and By-Laws, for report to the Executive Committee. 2. The proper committee consider the problem of collection of physicians' fees when a patient is covered by insurance: Referred to the Committee on Insurance, for report to the Executive Committee and legal counsel be obtained concerning the matter.

Committee on Budget and Finance: (Recommendations concerning matters referred to the Committee during time of the meeting). 1. Disapproval of proposal that the president of the State Society be paid a salary of $6,000.00 per annum: Approved. 2. The House of Delegates decline a reconsideration of the subject of purchase of the History of the Louisiana State Medical Society: Approved. 3. An amount of $150.00 be appropriated to defray expense in striking a plaque honoring Dr. E. L. Leckert, as recommended by the Past Presidents Advisory Council: Approved.

Cancer Commission: 1. Members of the Society be urged to continue and intensify their interest and activities in lay and professional education concerning cancer, further development and utilization of cytologic diagnostic methods, and improvement of facilities for caring for terminal cancer cases in both private and charity hospitals: Approved. 2. Amount of Five Hundred Dollars ($500.00) be budgeted for use, if necessary, by the Cancer Commission for carrying out its various functions during the coming year: Approved. (Appropriation previously approved by Committee on Budget and Finance.)

Committee on Diabetes: 1. Committee on Diabetes be continued and made more active: Approved.

Committee on Federal Medical Services: 1. Wider publicity, by members, to the programs advanced by AMA and allied professional groups with regard to providing improved private medical care for the aged (10 point program): Approved. 2. Endorsement of the AMA position that federal medical care responsibility for veterans be limited to service-connected illness and injuries: Approved. 3. Continued and increased leadership in planning and training of the medical profession and allied fields in the problems of disaster medical care: Approved. 4. Every member of the State Society be sent a copy of "Third Party Interference, the Practice of Medicine and the Market Economy" pamphlet published by the Association of American Physicians and Surgeons: Approved.

Committee on Insurance: (Recommendations reworded at time of meeting). 1. Continuation of this Committee: Approved. 2. Whenever the Committee is ready to make a specific presentation of a program it should first be presented to the Executive Committee: Approved. 3. The Committee be allowed to consider all possible programs for malpractice insurance, including that of an independent broker for this type of insurance: Approved. 4. If a program is submitted by an independent broker for malpractice insurance and is accepted by the Executive Committee, then that broker automatically becomes the broker of record for malpractice insurance: Approved. 5. Acceptance of proposed investment and retirement plan as submitted by the Pan American Life Insurance Company and the National American Bank: Recommendation not approved. Motion made and carried that the Insurance Committee be given authority to recommend companies to the Executive Committee for final approval and that all plans to be accepted be screened by the Insurance Committee and approved by the Executive Committee.

Committee on Journal: 1. Re-election of Dr. Sam Hobson and Dr. J. E. Knighton as members of the Committee on Journal: Referred to Nominating Committee and upon acceptance of report of this Committee Drs. Hobson and Knighton were re-elected.

Committee on Liaison with Louisiana State Bar Association: 1. Committee on Liaison with Louisiana State Bar Association be continued: Approved. Proposed inter-professional code was submitted and House of Delegates went on record as accepting report of the Committee and referred the code to the Executive Committee for further consideration; an opinion to be secured from the Bar Association before final adoption.

Committee on Liaison with Louisiana Hospital and Nurses Associations: 1. Participation by the Louisiana State Medical Society in this three-party conference be continued: Approved.

Committee on Louisiana Organizations for State Legislation: 1. Committee on LOSL be continued: Approved.

Committee on Mental Health: 1. Recommendation be made to appropriate authorities that a fully qualified administrative psychiatrist be secured to administer the State Mental Health Program: Not approved. 2. The Society stimulate conferences focused on ways to close the gap between Organized Medicine and the public mental hospitals: Not approved. 3. The State Society encourage parish and district societies to include more presentations on mental health in their programs: Not approved. 4. The State Society encourage development of conferences on psychiatric orientation of non-psychiatric physicians: Not approved. 5. The State Society encourage the parish societies and its members to take active part in educational programs in mental health for the general public: Not approved. 6. Wherever applicable interest in programs for the mentally retarded be included as a part of the above recommendations: Not approved. 7. The Committee on Mental Health be made a standing committee of the Louisiana State Medical Society, and it be composed of members with overlapping terms: Not approved. 8. The Committee on Men-

tal Health be recognized by the State Society as the body for liaison with the Governor, State Department of Hospitals, and State Department of Institutions in matters of mental health: Not approved.

Committee on Public Policy and Legislation: 1. Favor implementation of Kerr-Mills program by fostering appropriate State legislation: Approved. 2. Favor passage of legislation which would establish a hospital standard setting authority so that complete participation in Kerr-Mills benefits will be available to citizens of Louisiana: Approved. 3. Favor passage of a "Good Samaritan" law: Approved. 4. Favor restriction of the use of ionizing radiation to qualified personnel: Approved. 5. Favor passage of legislation for the protection of blood banks from unjustified law suits: Approved. Discussion of proposed legislation concerning standard-setting of hospitals and report that considerable favorable comment has been received from members of the Legislature concerning the First Aid Station.

Committee on Resolutions: 1. A copy of these resolutions be sent to each person and organization mentioned and also published in The Journal of the Louisiana State Medical Society: Approved.

Committee on Revision of Charter, Constitution and By-Laws: 1. The House of Delegates take no action with regard to membership, with deletion of dues, for active members who reach the age of seventy years and have been members for twenty-five or more years: No action due to action on recommendation of Councilor of First District (subject referred back to this Committee for report to the Executive Committee).

Council on Medical Service and Public Relations: 1. Utilize every means possible (publicity, personal appearances by officers before civic groups, etc.) to intensify the campaign against legislation which would include health care in the Social Security program; as part of the anti-Forand campaign, support for the full acceptance of the Kerr-Mills law for meeting medical needs for the aged is necessary: Approved. 2. Conduct a program through high schools in the State to encourage medical careers; supplying the vocational guidance counselors in each school with information on and the educational qualifications for various medical careers: Approved. 3. Combat and expose cultism, medical faddism, and quackery of all types; in addition to present anti-chiropractic efforts and coordinated with it: Approved, with deletion of "in addition to present anti-chiropractic efforts and coordinated with it". 4. As quickly as possible after the next election of state legislators, publish an updated version of the legislative directory: Approved. 5. Conduct an annual fireworks safety campaign through various publicity outlets in conjunction with the Fourth of July and New Year holidays: Approved. 6. Showing of health exhibits for laymen at three selected parish fairs: Approved. 7. Continuation of CAPSULES: Approved. 8. Continuation of existing educational campaigns such as tetanus, polio and diphtheria: Approved. Motion was made and adopted that the Council try to institute weekly television programs.

Amendments

Final adoption of following amendments approved at 1960 Annual Meeting.

Constitution

Article IV—Composition of the Society: Add "resident" to intern members and change "inactive" to "active dues exempt".

Article IV—Section 3. Honorary Members: Delete "but shall not be permitted to hold office".

Article IV — Section 4. Inactive Members: Change "inactive" to "active dues exmpt" and delete "nor shall they be eligible to hold office". Add "They shall be eligible to vote and hold office".

Article IV—Section 5. Intern Members: Change to "Intern/Resident" members.

Article VII—House of Delegates: Reword last part as follows :" . . . (3) an Advisory Body composed of Past Presidents with full voting power".

Article X—Section 1. Officers: Add "for one year following his retirement" in re term of office of retiring president.

Article X—Section 3. Officers: Add "nominated on the first day of the annual session by the House of Delegates and".

Article XIV — Amendments: Change "registered" to "present" in re vote of delegates.

Other Action

President of Louisiana State Medical Society encouraged to appoint a *committee to work with the Department of Rehabilitation* in the same manner as the Advisory Committee to the Department of Welfare.

Recommendations of Rapides Parish Medical Society: 1. The president of the State Society be paid a gratuity of $6,000.00 per annum in addition to the usual incurred expenses: Referred to the Committee on Budget and Finance and recommendation of that Committee that this recommendation be rejected, adopted. 2. All members of the Louisiana State Medical Society be members of the American Medical Association: Referred to the Executive Committee.

Resignation of Dr. Ralph H. Riggs as *AMA delegate for 1961* accepted. (Dr. Rhett G. McMahon, Alternate to serve in 1961).

Resignation of Dr. Walter Moss as *alternate AMA delegate for 1961 and 1962* accepted. (Dr. R. T. Lucas elected to replace Dr. Moss).

Resolutions

Dr. C. E. Boyd: Firmly believing that a few flowers should be given him who has earned our praise and thanks while he still has some olfactory sense, I would like to bring to your

attention a gentleman who was born in 1889 at Greensburg, Louisiana, who was educated and trained in Louisiana schools; who practiced his profession as a surgeon with distinction; who taught at Louisiana State University Medical School and Tulane Medical School; who is a past president of the Orleans Parish Medical Society and the Louisiana State Medical Society, serving both organizations well and faithfully in many capacities; who served the people of New Orleans as coroner for sixteen years; and who has given of himself unselfishly for the protection of the public and the profession against quacks, charlatans, corrupt politicians, and all other enemies. This gentleman is C. Grenes Cole, who has served us so well as Secretary-Treasurer of the Louisiana State Medical Society since 1950. He is not only renowned for his many accomplishments, a few of which have been called to your attention, but also for his inexhaustible witty stories. Although some of us have had various disagreements with him, no one can doubt his devotion to duty and to his beloved medical profession. Therefore, be it resolved that the House of Delegates give our Secretary, C. Grenes Cole, a rising vote of thanks, and that a picture or painting of him be placed in the office of the Louisiana State Medical Society, properly inscribed, as a living memorial of our esteem. Be it further resolved that the amount expended and the execution of this resolution be placed in the hands of the Budget and Finance Committee: Adopted.

Shreveport Medical Society: Whereas, The Social Security Amendments of 1960 to Public Law 86-778 will, in all probability, be implemented in the State of Louisiana in the near future; and Whereas, The amended Act implies that a direct vendor payment plan be utilized to furnish medical assistance on behalf of aged individuals; and Whereas, The Act amended provides for the establishment or designation of a state agency to administer the plan or provide for the establishment, or designation of a state agency to supervise the administration of a plan whereby intermediary agency can be utilized; and Whereas, It is the opinion of the members of the Shreveport Medical Society that the direct payment for services rendered under this Act by a governmental agency to any hospital, nursing home, or other institution poses a potential threat of control to such organizations, but that this should be a matter to be resolved between the governmental agency, the Louisiana Hospital Association and the Louisiana Medical Society, that on this matter the Shreveport Medical Society offers no opinion. However, the direct payment to physicians for medical services by any governmental agency constitutes a real and imminent danger to the medical profession and a serious threat to physician-patient relationship, and that this method of payment to physicians directly by a governmental agency is herewith opposed; therefore be it Resolved, That the President of the Louisiana Medical Society, the members of the Executive Committee and all other appropriate committees of the Louisiana State Medical Society make every effort to secure a method of payment for physicians' services rendered to both in-patients and out-patients whereby direct payment by governmental agency is not made, and that some intermediary agency be utilized and that such checks for payment require endorsement by both patient and physician: Referred to the Committee on Public Policy and Legislation.

Dr. J. C. Stovall: Be It Resolved That—The implementation of Public Law 86-778, commonly known as the Kerr-Mills Bill, be approved by the House of Delegates of the Louisiana State Medical Society and that the method of implementation be delegated to the Committee on Public Policy and Legislation of the Louisiana State Medical Society and that it be done in the interest of the practice of private medicine for the welfare of the recipients and that if feasible it be done through an intermediary agent rather than directly through a governmental agency: Adopted.

Louisiana Public Health Association: Whereas, there are over 100 community health programs in Louisiana administered by over 30 state agencies and, Whereas, this fragmentation of administration and operation of health services has occurred with increasing momentum during the past 25 years and, Whereas, this fragmentation fosters waste of state funds, and resources, decreases efficiency and quality of services rendered and makes it more difficult for those in need to obtain necessary services, Therefore be it resolved that this fragmentation of services be brought to the attention of the Governor, to the State Legislature and to the State Medical Society and, Be It Further Resolved that the above parties be requested to study this problem thoroughly for the purpose of finding a satisfactory solution for the benefit of the people of Louisiana: Referred to the Committee on Public Health of the State of Louisiana, for report to the Executive Committee.

Louisiana Public Health Association: Whereas, the recently passed Kerr-Mills Act is in the process of being implemented nationwide, and Whereas, enough time has not elapsed to evaluate how effectively this Bill will meet the needs of the aged and, Whereas, further sound legislation pertaining to the aged can only be based on the experiences gained from the full operation and evaluation of the Kerr-Mills Act, Therefore, Be It Resolved, that new legislation pertaining to the health problems and care for the aged not be considered by the U. S. Congress until

full information on the effectiveness of the Kerr-Mills Act becomes available, Therefore be it Resolved that this resolution be brought to the attention of the Louisiana State Medical Society and component member societies, the House and Senate, members from Louisiana: Referred to the Committee on Public Health of the State of Louisiana, for report to the Executive Committee.

Dr. Walter Moss: Whereas, more and more State operated community health programs are being established in a wide variety of aggressive lay agencies rather than under medically directed agencies, and Whereas, the above process of fragmenting community health services increases the cost of these services unnecessarily, decreases the quality and creates confusion in rendering these services, frustrates the people who need to avail themselves of these services, and makes it impossible for the medical profession to guard adequately the operations and development of State health programs, and Whereas, medical administration and medical direction are essential for competent operation of all health programs, Now, Therefore Be It Resolved by this House of Delegates of the Louisiana State Medical Society: That a committee be established to study the problems of organization, administration and all the other aspects of State government health services for the purpose of keeping the medical profession informed concerning these matters and for supplying pertinent and accurate data for guiding the actions of this Society, and That the House of Delegates go on record in urging that all governmentally operated health programs be placed under the direction of a medically directed agency. That the latter action be communicated to the State Legislators and other proper state authorities: Adopted—president to appoint a special committee to implement this program.

Matters Discussed—No Action Taken

National Emergency Medical Services.

Suggestion that the Secretary-Treasurer keep members of the Society informed through CAPSULES concerning the *hospital licensing law.*

Suggestion that Chairman of Arrangements for future meetings provides for a refreshment or snack bar near the meeting room.

Election of Officers, Delegates and Alternates to AMA and Committees

President-elect—Dr. Ralph H. Riggs, Shreveport

First Vice-President—Dr. J. Theo Brierre, New Orleans

Second Vice-President—Dr. Gordon W. Peek, Baton Rouge

Third Vice-President—Dr. Eugene H. Countiss, New Orleans

Chairman, House of Delegates—Dr. Charles B. Odom, New Orleans

Vice-Chairman, House of Delegates—Dr. H. H. Hardy, Jr., Alexandria

Councilor, Third District—Dr. Guy R. Jones, Lockport

Councilor, Sixth District—Dr. John L. Beven, Baton Rouge

Councilor, Seventh District—Dr. J. Y. Garber, Lake Charles

Councilor, Eighth District—Dr. R. E. C. Miller, Alexandria

Delegate to AMA—1962 and 1963—Dr. O. B. Owens, Alexandria

Alternate Delegate to AMA—1962 and 1963—Dr. Rhett G. McMahon, Baton Rouge (Alternate to Dr. Owens)

Alternate Delegate to AMA—1961 and 1962—Dr. Robert T. Lucas, Shreveport (Alternate to Dr. Long)

Committee on Committees: Dr. Edwin L. Zander, New Orleans, Chairman; Dr. Rhett G. McMahon, Baton Rouge and Dr. J. Kelly Stone, New Orleans.

Committee on Journal: Dr. Sam Hobson, New Orleans and Dr. J. E. Knighton, Shreveport.

Committee on Medical Defense: Dr. J. Kelly Stone, New Orleans.

Committee on Public Policy and Legislation: Dr. Jos. A. Sabatier, Baton Rouge, Chairman; Dr. N. J. Chetta, New Orleans; Dr. J. E. Clayton, Norco; Dr. Leo J. Kerne, Thibodaux; Dr. C. E. Boyd, Shreveport; Dr. E. J. Brown, Monroe; Dr. Jack Thielen, Lake Charles, Dr. F. P. Bordelon, Marksville.

Committee on Scientific Work: Dr. Sam Hobson, New Orleans and Dr. S. L. Gill, Shreveport.

Future Annual Meetings

Dates and Places: 1962—Monroe, May 7-9; 1963—New Orleans, May 6-8; 1964—Lafayette; 1965—New Orleans, May 3-5.

Discussion was held concerning possibility of considering the Gulf Coast for future meetings and this subject was referred to the Executive Committee for study.

REPORT OF COMMITTEE ON MEDICAL DEFENSE

In the twelve-month period, March 1, 1960 to March 1, 1961, this Committee has received four requests for legal assistance in claims of malpractice, as follows:

1. Claims aggregating $208,000.00 against a doctor and his insurer alleging malpractice arising from a bladder operation. Defense approved in October, 1960. No further action reported.

2. Suit for $76,000.00 claiming negligence following the death of a child from complications following measles. No action in this case reported.

3. Suit for $106,374.53 claiming negligence fol-

lowing an injury of the foot allegedly caused by a fish bone. No action reported.

4. Suit for $50,000.00 arising from postoperative wound infection. Case withdrawn.

The case in the 1959-60 report, claiming malpractice in an obstetrical patient, has been dismissed.

There is no further action to be reported in any of the other cases previously presented.

C. B. ERICKSON, M. D., Chairman

REPORT OF COMMITTEE ON RESOLUTIONS

The members and guests in attendance at the 1961 Annual Meeting of the Louisiana State Medical Society held in New Orleans May 8-10 wish to acknowledge, with thanks, assistance rendered by the following individuals and groups:

Dr. J. Theo Brierre, President; Dr. Eugene H. Countiss, Chairman, personnel of Committees on Arrangements and all members of the Orleans Parish Medical Society, hosts to the meeting.

Rev. Albert B. Link who offered the invocation at the official opening meeting of the Society.

Hon. James E. Fitzmorris, Jr., Councilman of the City of New Orleans for his cordial welcome to the city.

Dr. M. E. St. Martin, President, New Orleans Graduate Medical Assembly, for his words of welcome.

Dr. Edward R. Annis, of Miami, for his talk before the House of Delegates and for a most interesting presentation at the opening meeting.

Dr. W. W. Bauer and Dr. Roy T. Lester for their interesting reports concerning activities of the AMA.

The Chairman of the various scientific sessions and the following out-of-state guests who participated in the scientific program:

Dr. James S. May, Dallas, Texas
Dr. John Edmund Skogland, Houston, Texas
Dr. Herbert M. Stauffer, Philadelphia, Pennsylvania
Dr. James Sherwood Taylor, Little Rock, Arkansas
Dr. Frederick Zuspan, Augusta, Georgia

The New Orleans papers as well as the press throughout the State for publicity prior to and during the time of the meeting.

Radio and TV stations in New Orleans and throughout the State, for excellent cooperation in broadcasting specific phases of the meeting.

The Hotel Roosevelt, Headquarters for the meeting, for excellent services rendered members attending the meeting, as well as facilities for various sessions in connection with the meeting; also other hotels and motels in New Orleans for accommodations furnished.

The Catholic Physicians Guild of New Orleans for arranging a Memorial Mass in memory of those members of the Society who died during the past year.

Mr. Paul J. Perret and Mr. Paul R. Kalman, Jr., who rendered a most valuable service prior to and during the meeting as Public Relations Counselors in securing publicity for the meeting; also for their report presented to the House of Delegates.

Mr. Percy J. Landry, Jr., Legislative Consultant, who has continued to be most helpful to the medical profession, for his informative talk before the House of Delegates.

Scientific exhibitors whose exhibits add much interest to the meeting.

Pharmaceutical, surgical and other companies and organizations for their continued cooperation in having technical exhibits.

All companies who purchased space for advertising in the Program.

The New Orleans Country Club for facilities furnished for the golf tournament.

Dr. Edwin H. Lawson, Secretary of the Louisiana State Board of Medical Examiners for his report submitted to the House of Delegates.

Officers and members of the Woman's Auxiliary who prepared an interesting program for the members of the Auxiliary.

Dr. O. B. Owens who has served so capably during the past year as President of this organization.

The Past Presidents Advisory Council for report to the House of Delegates and their continued active interest in the organization.

Dr. Charles B. Odom, Chairman of the House of Delegates.

Dr. C. Grenes Cole, Secretary-Treasurer who has continued to render invaluable service to the organization.

Miss Annie Mae Shoemaker, Assistant Secretary-Treasurer and the entire secretarial staff for their efficient handling of details prior to and during the time of the meeting.

Recommendation

It is recommended that a copy of these resolutions be sent to each person and organization mentioned and also published in The Journal of the Louisiana State Medical Society.

ARTHUR D. LONG, M. D., Member
C. J. TRIPOLI, M. D., Member
SAM HOBSON, M. D., Chairman

MEDICAL NEWS SECTION

CALENDAR

PARISH AND DISTRICT MEDICAL SOCIETY MEETINGS

Society	Date	Place
Ascension	Third Tuesday of every month	
Calcasieu	Fourth Tuesday every other month	Lake Charles
East Baton Rouge	Second Tuesday of every month	Baton Rouge
Jefferson	Third Thursday of every month	
Lafayette	Second Tuesday of every month	Lafayette
Morehouse	Third Tuesday of every month	Bastrop
Natchitoches	Second Tuesday of every month	
Orleans	Second Monday of every month	New Orleans
Ouachita	First Thursday of every month	Monroe
Rapides	First Monday of every month	Alexandria
Sabine	First Wednesday of every month	
Tangipahoa	Second and fourth Thursdays of every month	Independence
Second District	Third Thursday of every month	
Shreveport	First Tuesday of every month	Shreveport
Vernon	First Thursday of every month	

AMERICAN CANCER SOCIETY

Topic for the 1961 Scientific Session of the American Cancer Society is "The Physician and the Total Care of the Cancer Patient." This session will be held at the Biltmore Hotel, New York City, on October 23 and 24, 1961.

Further information may be obtained by writing Professional Education Section, American Cancer Society, 521 West 57th Street, New York 19.

DR. RUBIN RECIPIENT OF AXSON-CHOPPIN AWARD

Dr. Wallace Rubin, New Orleans ear, nose and throat specialist, was the recipient of one of the Louisiana Public Health Association's highest awards, presented during the association's annual meeting in Alexandria, April 27-28.

Dr. Rubin was given the Axson - Choppin Award for his efforts in stimulating the organization of the Louisiana State Board of Health's hearing conservation program. The award is made each year for "significant longtime activity to foster the public health program in Louisiana or any part thereof by an individual not in full-time employment by an official public health agency."

Making the presentation, Clifton Lawrence of the State Board of Health described Dr. Rubin as one of the principal forces in developing the program. Organized in 1954 by the State Board of Health's dental and school health section, the program is designed to insure the early discovery, diagnosis and treatment of hearing loss among school children. Dr. Rubin has been chairman of the program's otological advisory committee since its origin in 1957 to advise the health department on medical aspects.

According to Mr. Lawrence, Dr. Rubin visited ear, nose and throat specialists throughout the state at his own expense and gained their support. He also took time from his private practice to hold trial clinics in various localities. Dr. Rubin is on the staff of the Eye, Ear, Nose and Throat Hospital and teaches at Charity Hospital.

AMERICAN PHYSICIANS ART ASSOCIATION

The 24th Annual Exhibition of the American Physicians Art Association will be held from June 26th to 30th in New York City in conjunction with the annual meeting of the American Medical Association. The exhibit will include works of sculpture, painting, crafts and photography by physicians throughout the United States.

Further information can be obtained from Alfred A. Richman, M. D., secretary, 307 Second Avenue, New York 3, N. Y.

AMERICAN COLLEGE OF CHEST PHYSICIANS POSTGRADUATE COURSES

The Council on Postgraduate Medical Education of the American College of Chest Physicians will present the following postgraduate courses during 1961:

Cardiopulmonary Problems in Children
Brown Hotel, Denver, Colorado, July 24-28
Industrial Chest Diseases
Warwick Hotel, Philadelphia, September 25-29
Clinical Cardiopulmonary Physiology
Sheraton-Chicago Hotel, Chicago, October 23-27
Recent Advances in the Diagnosis and Treatment of Heart and Lung Diseases
Park Sheraton Hotel, New York City, November 13-17
Recent Advances in Diseases of the Chest
Statler-Hilton Hotel, Los Angeles, December 4-8

Tuition for each course is $75 for members of the American College of Chest Physicians and $100 for non-members. The fee includes attendance at the round table luncheon discussions.

Further information may be obtained by writ-

ing the Executive Director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11.

ANTICOAGULANTS PREVENT SOME STROKES

Many persons who suffer temporary "warning" strokes can be spared a full-blown and possibly fatal stroke, a study indicated recently.

The findings support the view that long-term anticoagulant therapy affords protection from strokes to a significant percentage of patients who suffer intermittent attacks, according to three Mayo Clinic researchers.

Drs. Robert G. Siekert, Clark H. Millikan, and Jack P. Whisnant, Rochester, Minn., reported results of a study involving 230 patients in the April 8 Journal of the American Medical Association.

The patients were studied for periods of one to five years.

The incidence of strokes among 115 patients who received anticoagulant drugs continuously was 4 per cent, compared with an incidence of 40 per cent among 40 patients who did not receive this treatment.

Among the treated group, 83 per cent escaped a stroke while only 50 per cent of the untreated patients escaped.

MALIGNANT TUMOR NOT A HOPELESS DISEASE

Malignant tumor, a rare form of cancer, is "not a hopeless disease," according to an editorial in the April 8 Journal of the American Medical Association.

The editorial and two accompanying articles seek to dispel a commonly-held belief that the disease is "the most lethal of cancers in man."

It is "probably no better or no worse" than any other cancer, the editorial said.

This type of cancer usually develops from a mole and has a tendency to spread.

"When malignant degeneration begins, sufficient time remains in the majority of cases to act quickly and effectively," the editorial said.

The rate of survival may be as high as 20 per cent after 10 years, it said.

In a series of 130 cases at Ohio State University Medical Center from 1947 through 1957, the survival rate was 32 per cent for 5 years and 19 per cent for 10 years. In 120 of the cases, surgery was the method of treatment.

Dr. Arthur G. James, Columbus, Ohio, said the figures indicate "this disease should not maintain its past reputation as one of the most lethal cancers in man."

"The curative possibilities are definite," he said. "Also . . . the patient can be offered good and often long-term palliation."

In another article, Dr. Gordon McNeer, New York City, discussed the history and behavior of malignant tumor and concluded that "cure of this disease may be attained in a high percentage of patients in whom the disease is confined to one anatomic site."

When the disease is limited to the primary site, five year survival free of cancer is attained in 40 per cent of the cases, he said.

When the disease has spread, he said, "the outlook becomes considerably less favorable, although not hopeless."

SOCIAL SECURITY FACTS HAVE BEEN DISTORTED AND MISREPRESENTED

The truth about this country's social security program has been distorted and misrepresented to the American people and "important political and economic consequences" may result when the facts are ultimately understood, according to an insurance actuary writing in the April 8 issue of the Journal of the American Medical Association.

The article entitled "The Coming Din of Inequity," was written by Ray M. Peterson, vice president and associate actuary of the Equitable Life Assurance Society of the United States.

Peterson declared that:

1. The public is being given the false impression that the method of financing the social security program possesses many of the unique characteristics of voluntary private insurance which the people have learned to value highly.

2. The program has been misrepresented as being a "time-tested" and "tried and proved" system of financing old age benefits.

3. The people are being given the mistaken impression that social security benefits are paid out of accumulated reserves, similar to private insurance programs, when in truth the program is financed almost entirely on a pay-as-you-go basis with benefits paid out of current income.

Peterson noted that "a great national debate is now in progress as to the issue of providing medical care and hospital benefits under the Social Security System."

"That debate," he said, "can be pursued intelligently and wisely only if we understand the true nature and implications of the social security financing mechanism."

He said that a national old age pension program can be financed on a pay-as-you-go basis, a full-reserve basis, or some combination of the two.

Full-reserve financing is a "prepaid system" in which benefits are fully paid for during the years before they are received, he said.

"Full-reserve financing in the field of private insurance is the test of actuarial soundness and it is the only concept of actuarial soundness with which the American people are generally familiar," Peterson said.

He pointed out that under private insurance, all money paid into the insurance fund together with all income from investment is sufficient to pay all promised or guaranteed benefits.

Pay-as-you-go, on the other hand, means that the government raises through current taxes just enough money to pay the cost of benefits currently due, he said.

"No reserve is accumulated, no element of prepayment is involved," he said. "Money is raised as and after payees become eligible to receive benefits. In this latter sense, 'pay-as-you-go' is really a postpaid system of financing."

He added that the fiscal soundness of a government program depends "mainly on the taxing power of the government."

Peterson declared that the 80 per cent of social security taxes paid for the old age pension portion of the program (20 per cent going to survivor and disability benefits) would buy for new entrants 40 to 60 per cent more in old age benefits under an insurance company group annuity program.

He pointed out that from 1956 through 1965, tax collections for the program will total $115.1 billion while benefits and expenses in that period will total $114.5 billion.

"These figures clearly show that we are now almost completely on a 'pay-as-you-go' basis," he said.

He said the true nature of social security financing is also "vividly reflected" by the gap between the value of benefits owed to current beneficiaries and the amount of money in the trust fund.

If taxes paid into the fund had been stopped by Congress last year, Peterson said, the $20.2 billion in the fund would have paid only 23 per cent of the $88.3 billion of obligations to current recipients.

And if tax contributions are cut off in 1965 he said, the estimated $23.1 billion which will be in the fund will pay only 20 per cent of the $114.2 billion of benefit indebtedness owed to the then current beneficiaries.

There would be nothing left over for the millions who had paid taxes to the program but had not yet qualified for benefits, he said.

Peterson stressed also that young workers and those who enter the labor market in the future, together with their employers, will pay more in taxes than the workers will receive in benefits because they must bear a growing burden of indebtedness. This indebtedness arises, he said, from the fact that most present workers and those now receiving payments will have contributed, together with their employers, a great deal less than the actual obligations.

He said there is a "dawning realization" that Americans have but one choice—to pay interest on this debt "forever" since the only way to reduce the debt is for a given generation to build up a huge reserve over and above present payments solely to meet program obligations. "To expect this to happen is to be politically and economically unrealistic," Peterson said.

He said the debt arising from these unearned benefits has climbed from $150 billion in 1952 to about $300 billion under the existing program. It will rise even higher, he said, if Congress adds to the program without a tax increase high enough, as to present workers, to meet the additional cost.

Peterson quoted several public figures who have likened social security to pre-paid private insurance. These include President (then Senator) Kennedy who had called social security a system of paid up insurance and a way of saving money for old age so the elderly won't be a burden to their children.

He said there "is no foundation for these inaccurate parallels" with private insurance.

"Indeed, there is desperate need to dispel these self-mesmerizing, foggy concepts," Peterson said.

He pointed out also that "with no reserve fund in sight to reduce the debt" created under the social security program, "the burden being passed on to future generations is permanent. It is not something that will somehow work itself out, or go away; it is not an actuarial fantasy."

Peterson said that adding medical care to the Social Security System for the present aged would alter the original concept that each person must contribute for a minimum period of time before he is entitled to benefits.

Furthermore, he said, under the Administration social security program, or similar proposals, medical care would add between $20 and $30 billion to "the permanent social security debt on which future generations and their employees would need to pay interest forever."

Peterson said the main purpose of his article was to "show that there are excellent reasons for grave concern as to the probable ultimate effects of continued distortion and misrepresentation by interpreters of the Social Security Act, by statements of inadequately informed members of Congress and even by publications of the Social Security Administration itself."

Another purpose, he said, was to set the record straight by portraying an accurate picture of the financing mechanism as now oper-

ating by exposing the distortion and misrepresentation, no matter what its origin."

He said that when the American people finally learn that social security financing is "distinctly different" from voluntary private insurance with which it is compared, "a rude awakening may well occur, one which could have important political and economic consequences."

"Will the youngsters of the future protest what the oldsters of this generation have voted for themselves? During the decade ahead, will we oldsters, as we seek to enjoy our social security benefits, hear a rising clamor of unfairness—a din of inequity?"

BOOK REVIEWS

The Pharmacology of Anesthetic Drugs; by John Adriani, M. D., Director Department of Anesthesiology, Charity Hospital, New Orleans, La. Fourth Edition, 1960. Charles C Thomas, Springfield, pp. 232. Price $11.00, Cloth.

This revision of Dr. Adriani's book will establish it for all times as one of the great classics of American medical literature. It is a volume which no anesthesiologist or teacher of Pharmacology can afford to be without. It is the cornerstone for a firm structure of knowledge in the exploding field of anesthesia. Its clarity, order and directness will probably never be surpassed. For it the entire specialty of anesthesiology owes Dr. Adriani an enormous debt of gratitude.

To this fourth edition material has been added about new ethers, halothane, ultra short barbiturates, tranquilizers, anti-narcotics, muscle relaxants, hypothermia, hypotension, electroencephalography and respiratory acidosis. With each of these subjects in a simple outline form, interesting historical facts are presented to give perspective and background to the reader. The chemical basis of pharmacology is stressed anew just as it has always been by this great teacher.

Setcion XII on muscle relaxants and analeptics has been especially well done. Illustrations of physiological phenomena at the neuromuscular junction have been added along with chemical formulae of the most important relaxants and an outline of their chemical pharmacology.

To the older anesthesiologist this volume will serve as a milestone in the development of a great specialty. To the younger ones it will serve as a challenge for the future.

J. B. KAHN, M. D.

Maternity; A Guide to Prospective Motherhood; by Frederick W. Goodrich, Jr., M. D., Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1959, pp. 130, Illustrated. Price $1.75.

This "handbook" is concise, comprehensive, and practical. Prospective mothers will find it easy to read. It contains adequate information with emphasis on how to help the physician give the quality of care he is prepared to give the patient who has a basic understanding of the physical and emotional changes occurring during cyesis, labor, and delivery.

The author has wisely considered controversial topics such as routine x-ray studies, induction of labor, breast feeding, rooming-in, natural childbirth, and hypnosis with an attitude of good common sense.

This excellent little book is recommended for reading by pregnant women and by their husbands. The information in it will supplement and reinforce the prenatal conferences.

WOODARD D. BEACHAM, M. D.

Environmental Pediatrics; by Carl C. Fischer, M. D., Landsberger Medical Books, Inc., New York 1960; pp. 121, price $5.50.

In this brief but simplified and readable condensation, the author deals with several "sociopediatric" problems which should be of great interest to medical students, practitioners, and other workers in a number of paramedical fields.

As noted in his preface, the seven chapters of this handy pocket size book have resulted from an experience of thirty years in practice and teaching, reduced in recent years to lectures for medical students, thence to the present further condensation.

Most readers will undoubtedly look first at the currently conversational topics of "The Physician and Adoption" and, "The Physician and the Adolescent". Such sensible and orderly guidance as these two chapters provide would be reasen enough for all to read—but the other five chapters are equally pertinent, equally timely, and equally well-organized and readable.

Certainly, this very sensible and authoritative little volume should be handy at the bedside of the busy physician for pleasant and very informative reading; it might be equally handy in the glove compartment of his car or alongside his

busy telephone! Wherever, this is one little book that can and should be kept handy.

RALPH V. PLATOU, M. D.

The Management of Fractures and Soft Tissue Injuries; W. B. Saunders Company, 1960, pp. 372. Price $5.00.

The Committee on Trauma-American College of Surgeons

This volume, as stated by the publisher, combines the Seventh Edition of the Outline of the Treatment of Fractures and the Second Edition of Early Care of Acute Soft Tissue Injuries. Since these previous volumes should be familiar to most of us, little needs to be said about this book except that in view of the frequent association of fractures with soft tissue injuries the combination of the two within a single volume would appear to be fortuitous.

The text is well written and illustrated and contains an amazing amount of information for its size. It is an excellent introductory text and ready-reference handbook concerning practically all types of acute traumatic problems. It should be useful for medical students and interns, as well as practitioners, and should be available in dispensaries.

EDWARD T. HASLAM

Procedures in Vascular Surgery; by Richard Warren, Little, Brown, 1960, 211 p., price $12.00.

This book is an atlas of surgical procedures with emphasis on technique, but it includes concise discussions of objectives, indications, contraindications, and preoperative and postoperative management. The author includes surgical procedures on the thoracic and abdominal aorta and major vessels of the extremities and the neck. He excludes operations within the heart, portal hypertension, and lymphedema.

Dr. Warren has succeeded well in condensing his extensive personal experience in a vast field. Particularly commendable are the sections on amputations and diagnostic procedures, areas which are frequently overlooked in writings on vascular problems.

A minor criticism is that the art work is not uniform. For instance, in some illustrations the aorta is black and elsewhere white. This, however, does not detract seriously from an excellent useful book.

KEITH REEMTSMA, M. D.

Principles of Surgical Practice; by Emanuel Marcus and L. M. Zimmerman, McGraw Hill, 1960, 430 p., price $12.50.

This book represents a synopsis of current opinion on the principles of surgery. It is, as the authors intended, brief and concise. According to the preface, this book is aimed primarily at medical students who the authors assume do not have the time to study the larger textbooks of surgery.

This book fits in between the "outline" and "encyclopedic" types of surgical textbooks. It is well-written and carefully edited, and will be useful to medical students who desire surgery in outline form, and it will also serve as a framework for review of the field of surgery.

KEITH REEMTSMA, M. D.

Diverticulitis; by Sara Murray Jordan & R. S. Boles, Jr., Grune & Stratton, 1960, 90 p., price $4.75.

The monograph is the last contribution to the medical literature by Dr. Sara M. Jordan. It was completed soon after her death by her friend and associate, Dr. Russell S. Boles, Jr., in accordance with her outline.

The book is divided into two parts. The first half is an extensive, chronological review of reports concerning diverticula and diverticulitis of the colon beginning with the original recognition of the diverticulum in 1730 by Friend. The last half of the monograph discusses diverticulosis and diverticulitis in a classical text-book presentation.

The author's comments based on clinical experience and opinion, follow each sub-topical discussion. The value of the presentation is the compilation and critical review of the literature pertaining to colonic diverticulum and its associated problems.

R. SPARKS, M. D.

W. B. SAUNDERS features the following recent books in their full page advertisement appearing elsewhere in this issue:

WHITE — CLINICAL DISTURBANCES OF RENAL FUNCTION
Diagnosis and treatment measures for kidney disorders

RUBIN — THORACIC DISEASES
Covers both medical and surgical management

MAYO CLINIC — DIET MANUAL
Recent advances in food, vitamin and dietary practice

PUBLICATIONS RECEIVED

Appelton-Century-Crofts, Inc., N. Y.: Symptom Diagnosis, by Wallace Mason Yater, M. D., and William Francis Oliver, M. D. (5th edit.).

Doubleday & Company, Inc., Garden City, N. Y.: The Golden Age Cookbook, by Phyllis MacDonald; The House of Healing, by Mary Risley.

W. B. Saunders Co., Phila.: A Manual of Cutaneous Medicine, by Donald M. Pillsbury, M. D., Walter B. Shelley, M. D., and Albert M. Kligman, M. D.; Clinical Disturbances of Renal Function, by Abraham G. White, M. D.